Government of Saskatchewan

Annual Report 2001-02

Saskatchewan
Environment

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Visit our web site at **www.serm.gov.sk.ca**

Saskatchewan Environment welcomes your comments and questions. We can be contacted by email: inquiry@serm.gov.sk.ca, phone: 306-787-2700 (Regina), 1-800-567-4224 (toll free) or mail: 3211 Albert Street, REGINA SK S4S 5W6

Letters of Transmittal

August 2002

The Honourable Dr. Lynda M. Haverstock
Lieutenant Governor
Province of Saskatchewan

May It Please Your Honour:

I respectfully submit the Annual Report of Saskatchewan Environment (SE) for the fiscal year ending March 31, 2002.

Respectfully submitted,

Buckley Belanger
Minister

The Honourable Buckley Belanger
Minister of Environment

Dear Sir:

I respectfully submit to you the Annual Report for the Department of Environment for the year ending March 31, 2002.

The 2001-02 Annual Report describes Environment's vision, mandate, goals and objectives. It details actions taken to manage and protect our natural and environmental resources in a manner that ensures the people of Saskatchewan enjoy the health, social and economic benefits derived from these resources while ensuring they are sustained for future generations. The report also identifies some key environmental risks that might affect the department's success and how we manage those risks. The financial overview details how Environment manages its fiscal responsibilities.

It is my hope that this document will be a useful aid to understanding how Environment contributes to our province's appeal as a desirable place to visit, invest, work and live.

Respectfully submitted,

Terry Scott
Deputy Minister

Who We Are

Saskatchewan Environment's **vision** - A high quality environment, and healthy ecosystems in perpetuity which sustain social, health and economic well-being for Saskatchewan citizens.

Our **mandate** - Saskatchewan Environment (SE) carries the provincial responsibility to manage, enhance, and protect Saskatchewan's natural and environmental resources for conservation, social, economic, and recreation purposes, and to ensure they are sustained for future generations:

We focus on:

- using natural resources wisely to build and sustain economic development;
- protecting primary resources including air, water and soil using regulatory and non-regulatory controls;
- managing and protecting natural resources including forests, fish, wildlife, lands and parks, and their natural and cultural resources, in such a way as to ensure their sustainability and biological diversity;
- dealing with the impact of alterations to the natural environment by development activities through the environmental impact assessment program;
- maximizing economic and social benefits from renewable resources while maintaining resource sustainability;
- promoting public, stakeholder and Aboriginal peoples' involvement through public involvement programs and partnerships;
- promoting stewardship of the environment and its natural, recreational and cultural resources through information programs, partnerships, policies and enforcement; and
- cooperating in the development of inter-jurisdictional, national and global initiatives aimed at enhancing management of the environment.

Principles

SE carries out its mandated responsibilities using the following principles:

Ecosystem approach
Ecosystems consist of communities of humans, animals, plants, and micro-organisms, interacting with each other and with the non-living elements of their environment. Environmental protection and resource management is based on an ecosystem approach, recognizing that all components in an ecosystem are closely linked and cannot be managed in isolation from one another. Sustainable development approaches should simultaneously consider impacts on each environmental medium (air, land and water) to avoid the transfer of risk from one environmental medium to another.

Prevention
Sustainable development approaches should emphasize the principle that it is better to "anticipate and prevent" environmental and resource degradation rather than "react and cure" the problem once it has occurred.

Risk Assessment
SE will first assess the risk an environmental or natural renewable resource management issue could have on human health, the integrity and health of the ecosystem, and socio-economic impacts, before taking action and or allocating resources to address the issue.

Precaution
When faced with uncertainty about whether a negative environmental impact will occur, it is preferable to take a precautionary approach that preserves the environment in cases where the cost of the impact might be high and irreversible.

Shared Responsibility
Sustainable development approaches require the commitment and participation of all parties, including First Nations and Métis, industry, governments, education institutions, non-government organizations and the public. Cooperation of these sectors will foster a smoother transition to sustainability than would independent action. A listing of our primary partners and stakeholders can be found in Appendix B of this document.

Integration
The environment cannot be dealt with in isolation. It must be protected and managed in a systematic way by being fully-integrated into all aspects of the economy and society, including business, government and individual decision-making. Communication is fundamental to encouraging integrated environmental and resource use decisions, to improving the efficient and effective operation of the department, and to maintaining positive relations with stakeholders and the public. Communication by SE staff is characterized by open dialogue that is accurate, clear, and consistent.

Stewardship
Sustainable development approaches should be considered for their long-term benefits. Up front costs should be viewed as investments with a pay-back over the long-term. We should recognize that natural resources are the possession of our generation, but also future generations.

Full Information on Costs
The price we pay for goods and services generally does not include "externalities" such as environmental damage or costs that can at times be associated with their production and use. Information about environmental costs should be made available so that sound decisions can be made in the marketplace about what and how to produce and consume.

Organization

Organizationally, we are structured along four divisions: Corporate Services, Operations, Policy and Assessment, and Programs. Policy and program development is centralized in Regina, while program delivery is decentralized across the province through five EcoRegion offices that correspond to the province's natural ecological regions (Shield, West Boreal, East Boreal, Parkland and Grassland).

Programs Division develops and coordinates the planning, implementation and evaluation of environmental and resource management policies, programs and legislation. Programs Division is made up of the following branches: Environmental Protection, Fish and Wildlife, Forest Ecosystems, Parks and Special Places, Sustainable Land Management, Water Management and Climate Change.

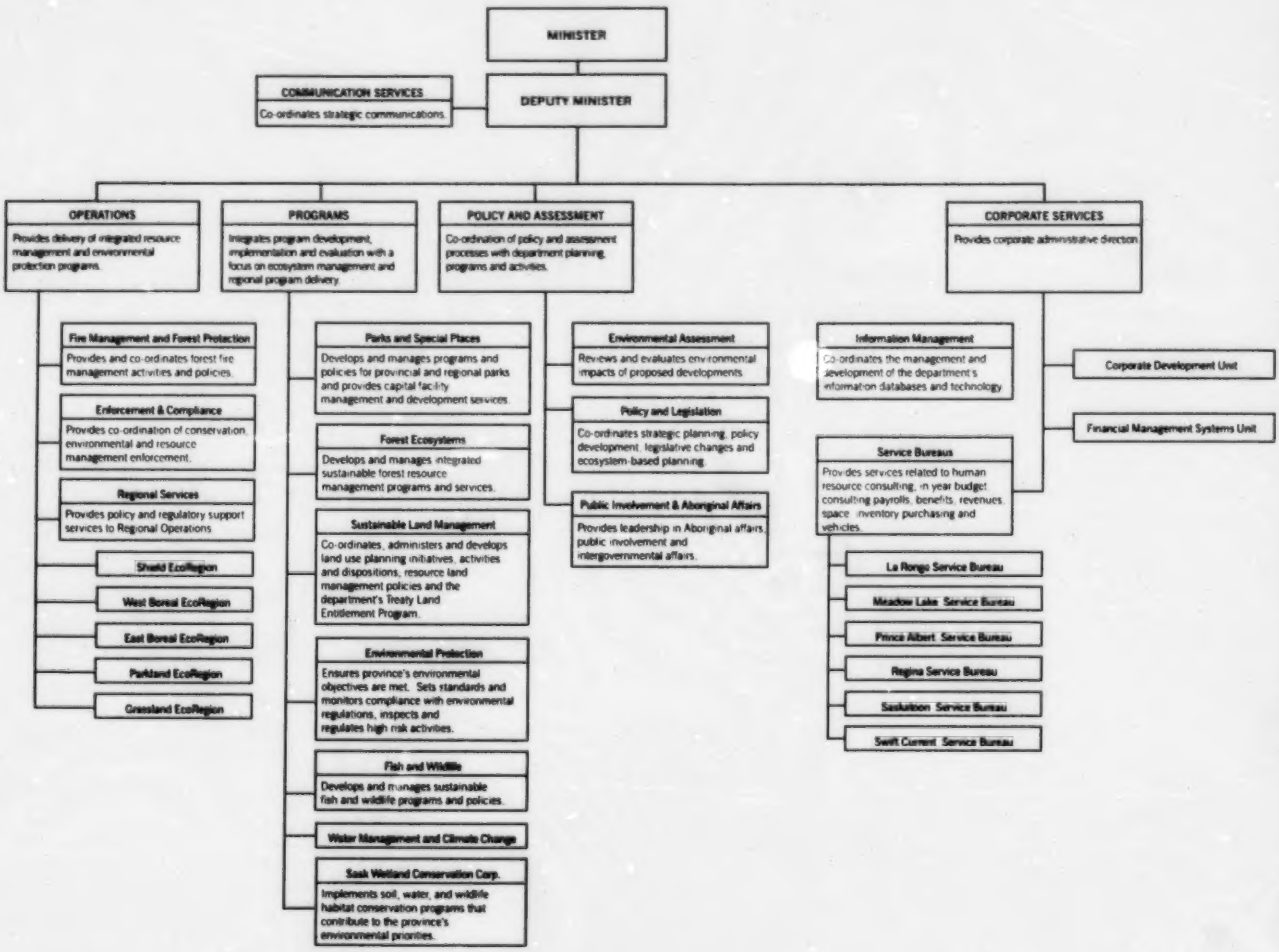
Operations Division is the program delivery arm of the department, providing regional planning and delivery of the department's programs and services. Operations Division is comprised of three branches - Enforcement and Compliance, Fire Management and Forest Protection (FMFP) and Regional Services - located in five EcoRegions (i.e., Grassland, Parkland, East Boreal, West Boreal and Shield) that deliver field operations. EcoRegions are based on natural ecological characteristics: a structure that enables SE to deliver integrated resource management and environmental protection programs while tailoring activities to meet the unique needs of the region.

Policy and Assessment Division integrates and coordinates key functions, policies and activities across the department, including: strategic planning, policy and legislative processes; public involvement and aboriginal liaison policies and processes; environmental impact assessment; and ecosystem-based management planning. The Division includes Environmental Assessment Branch, Policy and Legislation Unit, and Public Involvement and Aboriginal Affairs Unit.

Corporate Services Division provides strategic and operational financial, human resources and information management support to the department. There are six Service Bureaus: Regina, Prince Albert, Swift Current, Meadow Lake, Saskatoon and La Ronge. Service Bureaus provide operational support to the entire department in: human resources, financial and property management services, general administration and program support, as well as other functions associated with central

government agencies, e.g., Finance, Public Service Commission. The Corporate Development Unit is responsible for developing strategic plans and policies related to corporate-level planning, finances, organizational development and human resource work. The Information Management Branch provides information management services and information technology maintenance and development services. The Financial Management Systems Unit process expenditures and revenues and provides financial management to the department.

Communication Services Branch delivers strategic communications to: shape the department's image, coordinate department communications with other government organizations, increase participation in department programs and environmental stewardship, facilitate information exchange within the department, and to facilitate public and stakeholder input in the development of policies and programs.


MINISTER
DEPUTY MINISTER
COMMUNICATION SERVICES
Co-ordinates strategic communications.
OPERATIONS
Provides delivery of integrated resource management and environmental protection programs.
PROGRAMS
Integrates program development, implementation and evaluation with a focus on ecosystem management and regional program delivery.
POLICY AND ASSESSMENT
Co-ordination of policy and assessment processes with department planning programs and activities.
CORPORATE SERVICES
Provides corporate administrative direction.
Fire Management and Forest Protection
Provides and co-ordinates forest fire management activities and policies.
Enforcement & Compliance
Provides co-ordination of conservation, environmental and resource management enforcement.
Regional Services
Provides policy and regulatory support services to Regional Operations.
Shield EcoRegion
West Boreal EcoRegion
East Boreal EcoRegion
Parkland EcoRegion
Grassland EcoRegion
Parks and Special Places
Develops and manages programs and policies for provincial and regional parks and provides capital facility management and development services.
Forest Ecosystems
Develops and manages integrated sustainable forest resource management programs and services.
Sustainable Land Management
Co-ordinates, administers and develops land use planning initiatives, activities and dispositions, resource land management policies and the department's Treaty Land Entitlement Program.
Environmental Protection
Ensures province's environmental objectives are met. Sets standards and monitors compliance with environmental regulations, inspects and regulates high risk activities.
Fish and Wildlife
Develops and manages sustainable fish and wildlife programs and policies.
Water Management and Climate Change
Sask Wetland Conservation Corp.
Implements soil, water, and wildlife habitat conservation programs that contribute to the province's environmental priorities.
Environmental Assessment
Reviews and evaluates environmental impacts of proposed developments.
Policy and Legislation
Co-ordinates strategic planning, policy development, legislative changes and ecosystem-based planning.
Public Involvement & Aboriginal Affairs
Provides leadership in Aboriginal affairs, public involvement and intergovernmental affairs.
Information Management
Co-ordinates the management and development of the department's information databases and technology.
Service Bureaus
Provides services related to human resource consulting, in year budget consulting payrolls, benefits, revenues, space, inventory purchasing and vehicles.
La Ronge Service Bureau
Meadow Lake Service Bureau
Prince Albert Service Bureau
Regina Service Bureau
Saskatoon Service Bureau
Swift Current Service Bureau
Corporate Development Unit
Financial Management Systems Unit

The 2001-02 Fiscal Year in Review

This Annual Report is offered to government, our stakeholders, clients, staff, and the public to describe activities that contributed to our goals and objectives.

Environment's Goals and Objectives

Goal	Objectives
1 A Clean and Healthy Environment	1. Clean Water 1.1 Safe municipal drinking water 1.2 Good quality surface and ground water 2. Clean air 3. Clean land 4. Minimize risk and adverse impact of wildland fires on people, property and natural resources
2 Protect Ecosystem Health and Natural Abundance of Renewable Resources	5. Species and habitat at risk are protected 6. Biodiversity and ecosystems are sustained
3 Provide Fair Opportunity for Sustainable Use, Development and Enjoyment of Natural Renewable Resources	7. Equitable allocation of natural renewable resources 8. Accessible recreational and educational opportunities on provincial park and Crown resource lands 9. Increased economic benefits based on sustainable use of natural renewable resources 10. First Nations and Metis rights and their interests in the use of natural resources are met through co-operative means.

Goal 1 - A Clean and Healthy Environment

Objective 1.1 Safe Municipal Drinking Water

For example, municipal drinking water should not contain dangerous contaminants.

Objective 1.2 - Good Quality Surface and Ground Water

For example, surface and/or ground waters are the main source of water for fish and wildlife, for municipal drinking water, recreation, agriculture and industrial purposes. It is important that source waters do not contain levels of chemical, biological and physical contaminants that make them unfit for these purposes and minimize the need for expensive municipal drinking water treatment.

In 2001-02 key actions in support of these objectives included:

Recognizing the importance of high quality drinking water, the government allocated $720,000 and 10.5 positions to improve Environment's ability to manage drinking water activities.

In the fall of 2001 and the early winter 2002, Saskatchewan Environment, in conjunction with other departments and agencies, reviewed the province's drinking water objectives, legislation, and programming to develop a Long Term Safe Drinking Water Strategic Plan. The various mandates of provincial departments and agencies involved in management of drinking water, source water and water utilities were also reviewed. The Long Term Safe Drinking Water Strategy was announced early in the 2002-03 fiscal year. The department also reviewed the *Environmental Management Protection Act* (EMPA) to incorporate new water management practices learned from the Walkerton, Ontario tragedy and the North Battleford incident.

The department:

- ensured major developments, such as mines and industrial plants, complied with the conditions of their permits. For example, mine sites were inspected and effluent samples obtained to confirm that discharges met regulations and approval conditions. Expiring approvals for mine operations were reviewed prior to re-issuance,
- developed new operating plans for Prince Albert's Weyerhaeuser Pulp and Paper Mill,
- finalized parameters for the Surface Water Quality Index to monitor provincial waters and developed a data set for the Qu'Appelle River,
- carried out Cumulative Effects Monitoring (CEM) sampling near the Cluff Lake uranium mine in the Athabasca Basin, and
- issued 34 Precautionary Drinking Water Advisories (PDWAs) and helped Saskatchewan Health Districts issue more than 10 Emergency Boil Water Orders.

The department evaluated and revised the compliance program for all Environment-regulated drinking water systems, including increased waterworks inspection and communication with municipal and private waterworks owners. Department staff responded to a heightened awareness and level of concern regarding drinking water programming across the province. New procedures were established to ensure prompt follow-up to positive bacteriological reports and to reduce the number of communities that haven't submitted results for long periods.

Quarterly reviews of bacteriological submission rates were completed. These reviews, along with subsequent follow up with the communities, led to an improvement in sample submissions. For example, in 1999 over 60 per cent of communities in the West Boreal EcoRegion were in a state of non-compliance with the bacteriological sample submission rates. In 2001-02 this number was reduced to 14 per cent. The importance of bacteriological sample submissions was re-enforced through letters to communities, meetings with town and village officials, and in some cases, notices of non-compliance. General Chemical and Health and Toxicity sample submission rates were examined in 2001-02; specific follow-up procedures are to be established in 2002-03.

The department provided Saskatchewan people with information on ground, surface and drinking water quality. For example:

- the 2001 Drinking Water Compliance Report provided detailed summaries of municipal drinking water quality performance and compliance with the monitoring requirements of Minister's Orders to Operate Waterworks and The Municipal Drinking Water Quality Objectives. The report provides a comparison to results in 2000.

- clients were advised of the importance of regular monitoring for bacteriological contaminants and other concerns in a direct mailing in June 2001.
- a variety of feature articles, a public service announcement and other communication products were undertaken to encourage water stewardship.

As a member of the Canadian Council of Ministers of the Environment (CCME), Environment worked with the other provinces and jurisdictions to develop and implement Canada-wide standards that affect surface waters. The province also collaborates in the development of Canadian Drinking Water Quality Guidelines (upon which Saskatchewan bases its own guidelines). In 2001-02 Saskatchewan co-chaired the National Drinking Water Committee that:

- drafted guidelines for algal toxins, turbidity and protozoa,
- produced *From Source to Tap - The Multi-Barrier Approach to Safe Drinking Water* discussion paper,
- conducted a national survey on drinking water regulations and guidelines, and
- revised boil water advisory guidelines.

As part of its obligation to the Prairie Provinces Water Board, Saskatchewan Environment:

- identified nutrient issues for Saskatchewan watersheds,
- studied sodium, manganese, and phosphorous in the Carrot and Qu'Appelle River systems,
- developed transboundary, site-specific water quality objectives with Manitoba, and
- examined the water quality of northern and recreational lakes, the impact and management of algal toxins, the impacts of stormwater discharges in Saskatoon (as part of options for regulatory management of storm water quality) and the impact of intensive livestock operations on surface water quality.

Other activities in 2001-02 included:

- Saskatchewan Environment provided support and funds to the mandatory water and wastewater certification program. Approximately 275 operators received water and wastewater certification in 2001-02 (compared to 25 in 2000-01).
- a new intra-provincial Water Management Committee was formed to help ensure responsible agencies coordinate actions and cooperate to achieve Water Management Framework objectives
- SE continued as an active participant in the federal/provincial *Canadian Environmental Protection Act* (CEPA) toxics process with a focus on ensuring management plans developed for toxic substances are acceptable to Saskatchewan. For example, the Shield EcoRegion reviewed draft information on designation of uranium as a toxic substance.
- in October 2000 the Ministers of Environment and Labour and the President of the Canadian Nuclear Safety Commission (CNSC) signed a Memorandum of Understanding to harmonize regulation of the uranium mining industry. The parties have since drafted an agreement to have the province take on an increasing role in the delivery of the CNSC's mandate. Next steps include inviting stakeholder comments. Phase 1 will see provincial inspectors becoming trained as CNSC inspectors and participating in CNSC staff licensing activities. Phase 2 will see provincial staff playing a larger role in CNSC licensing/assessment activities, a review of provincial/federal *Acts* and development of a harmonized regulatory regime. Phase 3 will see the implementation of the harmonized regulatory regime and the incorporation of provincial acts and instruments into regulations issued pursuant to the CNSC's *Nuclear Safety and Control Act*.
- SE worked with Saskatchewan Agriculture and Food and Rural Revitalization (SAFRR) to better manage livestock operations for environmental protection.
- Environment worked with industry to improve operating practices/standards near water (e.g. directional drilling under water crossings with pipelines is encouraged rather than open cut methods)

In 2001-02, 28,697 water samples were analyzed and 149,352 measurements stored in Environment's water quality database. The water database (ESQUADAT) contains 489,273 sample results and 3,492,701 million measurements.

Risk Management Strategies for Objective 1

The quality of drinking water depends on the quality of the source water and the ability of the municipalities to operate the water systems within the treatment requirements set by SE. SE works closely with other agencies and organizations that share responsibility for, or impact on, source water and drinking water quality. The mandate for management of provincial water is housed in many provincial government departments and in all levels of government. Environment works with its many partners to clarify roles and to promote stewardship of water resources. SE implemented the five-year Water Management Framework (1999-2004) to resolve many of these issues. Ongoing participation in the National Water Quality Guidelines Development initiative will also lead to more rigorous environmental standards and greater protection of provincial water resources. SE promotes the message that clean water is everyone's responsibility. Integration of water quality protection efforts with land use/development controls through environmental assessment remains important.

Specific strategies to deal with water quality risks include:

- continued monitoring of industrial/mining activities and waste management to ensure permit conditions are met (e.g. CEM in the Athabasca Basin area will help to determine environmental impacts related to uranium development),
- management guidelines for urban runoff and spill remediation,
- reducing livestock's direct access to surface drinking water supplies, and
- certification of municipal water/wastewater system operators.

- *On April 24, 2001, Environment staff were advised by Saskatchewan Health that Cryptosporidium was causing the people of North Battleford to become ill. An investigation by Environment personnel determined that the surface water treatment plant was the cause of the problem, and a boil water order was issued, remaining in effect for three months.*
- *On May 7, 2001 Premier Calvert announced a Public Inquiry into the outbreak.*
- *The Report of the Commission of Inquiry into matters relating to the safety of the public drinking water in the City of North Battleford, Saskatchewan, was released to the provincial government on March 28, 2002. A summary of the Commission's recommendations and the government response is available on the department's website* (http://www.serm.gov.sk.ca/environment/protection/water/PublicChart.pdf).

Objective 2 - Clean Air

Saskatchewan air quality rates high relative to many other jurisdictions. SE monitors air quality and takes steps when necessary to ensure clean air. Many factors affecting air quality (e.g. wind, forest fire smoke, industrial emissions from other jurisdictions) fall outside the department's regulatory capabilities.

An April 2000 survey indicated that Saskatchewan residents feel the most important environmental issue in the province is 1) air pollution 2) water quality 3) chemicals in food and 4) recycling.[1]

In 2001-02 key actions in support of this objective included:

The department worked to develop cooperative environmental assessment agreements with Alberta and Manitoba. Acid rain, much of it from Alberta's rapidly expanding oil sands industry may adversely affect Saskatchewan's Boreal Shield Ecozone where mineral soils and shallow, poorly buffered lakes are particularly vulnerable to acid rain. Alberta's proposed new coal-fired power plants are also expected to impact our northern lakes and land. Rainfall and lakes in the Shield EcoRegion are monitored on a regular basis to assess rain pH levels and its impact on northern lakes. Environment is also actively involved in Alberta's environmental assessment procedures - reviewing EIA Terms of Reference and these projects Environmental Impact Statements - to ensure Alberta regulators are aware of our concerns.

Environment updated the province's air quality data management system. A new system capable of storing data from all air monitoring sites within the province and containing imported historical data was implemented in January 2002.

The overall annual air quality index was considered "good" for both Regina and Saskatoon. In 2001-02 there were no exceedances of 1) ambient air quality standards or Canada Wide Standards for 2) particulate matter or 3) ozone. Air monitoring summaries were provided for both the Regina and Saskatoon State of the Environment Reports. Ambient air monitoring data was also distributed to the public on request (35 inquiries).

In 2001-02 Saskatchewan Environment took the following measures to enhance air quality:

- began work to amalgate *The Ozone-depleting Substances Control Act* (ODSCA) with *The Environmental Management and Protection Act* to retain operational aspects of the ODSCA while reducing the number of Acts and improving the consistency and clarity of the legislation. Requirements will be amended to reference halocarbons to ensure Saskatchewan is consistent with other jurisdictions.
- participated on the Federal/Provincial/ Territorial Committee on Pest Management and Pesticides where officials exchanged information on sustainable pest control practices in Canada and worked to harmonize pesticide-related programs and policies. Chart The Crop Protection Institute's Saskatchewan Pesticide Return program, run in cooperation with Environment, Agriculture and Agri-Food Canada, SAF, the Prairie Farm Rehabilitation Administration and the Canadian Association of Agricultural Retailers, collected 49,700 litres of liquids and 25,000 kilograms of solids for disposal in an environmentally responsible manner (compared to 47,150 litres of liquids and 14,593 kilograms of solids one year ago).
- partnered with SAFRR, City of Regina, Health and Health Districts to improve understanding of crop residual burning. Information was developed and distributed at agricultural events, through direct mail-outs and in association newsletters. Instances when burning caused problems were followed up with information on conducting proper crop residue burning.
- finalized and signed a Memorandum of Understanding with Alberta to implement a bilateral acid rain management framework.
- issued operating approvals for regulated system (e.g. uranium mines) and received, as required, monthly and annual reports on air monitoring results.

In 2001-02, 1.5 million seedlings were planted using SaskPower funding from a carbon sequestration agreement. In return, the utility received a credit for carbon removed from the atmosphere by the growing forest.

Environment is a member of the National Air Issues Coordinating Committee (NAICC), which develops coordinated management plans, tracks progress in achieving targets to reduce air pollutants, facilitates national stakeholder consultations, and advises the federal government on negotiations on international air quality agreements including climate change.

[1] Arcas, *Saskatchewan Environment and Resource Management (SERM) Public Opinion Survey*, April 2000, p. 8

Parties to the Kyoto Protocol (with the exception of the United States) reached agreement on rules governing the Protocol's implementation and paved the way for a Canadian decision on ratifying the Kyoto Protocol. Once ratified, the Kyoto Protocol would obligate signatories to reduce greenhouse gas emissions to agreed-upon targets between 2008-2012. Canada's target under the Kyoto Protocol is to reduce emissions to a level six per cent lower than 1990 emissions. Saskatchewan's per capita emissions are higher than the national average, reflecting our colder climate, sparse population, energy intensive economy and reliance on coal-fired electrical generation. Saskatchewan's emissions are 31 per cent above 1990 levels and reflect both the economic growth of the last decade and increased production/consumption of energy. Saskatchewan's 2010 greenhouse gas emissions are projected to be at least 40 per cent over 1990 levels on a "business as usual" scenario. Further, national policy instruments meant to ensure Canada achieves its target level could hit Saskatchewan harder than other parts of the country. For example, large emitters might be targeted for special measures that could mean far greater per capita reductions in Saskatchewan than elsewhere and much greater per capita costs.

Some actions Saskatchewan took to reduce greenhouse gas emissions were:

- residents are able to find Saskatchewan-based climate change information more easily thanks to **Climate Change Saskatchewan**, a new public education and outreach hub designed to help residents understand climate change in Saskatchewan and how to lessen its effects. A partnership involving the University of Regina and the Saskatchewan and Canadian governments, Climate Change Saskatchewan (http://www.climatechangesask.ca/) is creating greater awareness and understanding on: how climate change is affecting Saskatchewan, how it might affect us in the future and how we can adapt and take steps to reduce its impacts.
- Environment co-chaired the Saskatchewan Stakeholder Advisory Committee on Climate Change which provides feedback to government and brings a Saskatchewan perspective to climate change issues. SE and Saskatchewan Energy and Mines developed the Saskatchewan portion of the *2001 Progress Report on the First National Business Plan Initiatives on Climate change* and developed the *Climate Change - Saskatchewan Edition* brochure.

The department worked to reduce burning at landfills and improve municipal landfill management in Saskatchewan. A provincial policy to prohibit the burning of refuse at landfills was initiated. The department will make an initial site inspection and share information on the state of compliance with operators. Education and additional inspections will continue until compliance is reached or enforcement options need to be considered.

In 2001-02 the department:

- discussed proper landfill management with dozens of communities throughout the province,
- established a provincial precedent with the successful prosecution of one community for chronic, illegal burning of their landfill, and
- inspected municipal landfill sites on Crown land and verified land dispositions. Sites operating illegally were issued written warnings with a requirement to clean up and dispose of litter in an approved landfill.

Risk Management Strategies for Objective 2
SE identified the following actions to address issues that may impact our ability to ensure clean air:

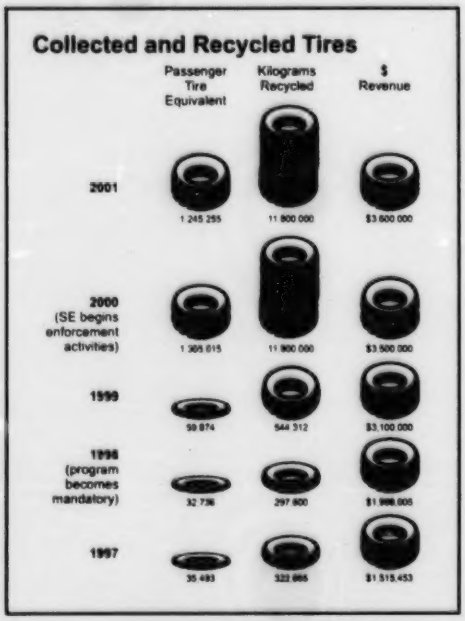
- cooperate with other departments and farm groups to develop and implement an information and education program for farmers on eliminating stubble burning, and consider potential regulatory requirements to address stubble burning related air quality issues,
- participate in inter-provincial forums on air quality to minimize the adverse impact of other jurisdictions' actions on Saskatchewan's air quality,
- ensure (through permitting and enforcement) that industry emissions are in compliance with standards listed on operating permits,
- participate (with Saskatchewan Industry and Resources) in national and interprovincial endeavors on climate change, acid rain, vehicles and fuels, ozone-depleting substances and other air issues to contribute to global air quality improvement which meets our provincial environmental, economic and social objectives, and
- direct efforts to protect air quality through SE's Clean Air Strategy.

Objective 3 - Clean Land

While Saskatchewan land is generally clean, an issue of concern is contaminated sites that pose an environmental and human health danger. The pollutants from contaminated land can enter water, air and the food chain, affecting the health of many life forms. Another issue relating to clean land is recycling - important both for reducing demands on raw materials (and subsequent environmental impacts) and enhancing resource sustainability.

Statistics indicate that waste generation increases at a rate similar to that of economic growth. Saskatchewan is an exception to this rule. Despite a 24.6 per cent increase in Saskatchewan's GDP (1991 to 1998) our waste generation rate has decreased[2]. The latest figure (2000) for our waste disposal rates continues to show a reduction and is lower than rates for both Alberta and Manitoba (although still higher than the national average). This reduction is attributed to considerable efforts by Saskatchewan municipalities and many organizations over an extended period.

In 2001-02 key actions in support of this objective included:



Every year, Saskatchewan generates one million scrap tires, a significant waste issue because tires do not breakdown easily, take up significant space in waste disposal grounds, attract vermin and pose a fire hazard. Government and industry share responsibility to deal with this waste - SE has regulatory and enforcement responsibilities while industry knows what works best for them when dealing with scrap tires. Industry formed the Saskatchewan Scrap Tire Corporation (SSTC) in 1996 as a non-profit, non-government agency to collect and recycle scrap tires (SE sits on the SSTC Board of Directors as a technical advisor). In 1998 it became mandatory for all tire retailers to either offer a recycling program for their customers or enter in to an agreement with an organization who would operate a recycling program on their behalf. Approximately 1,200 tire/vehicle retailers have joined the SSTC and are now program members. Environment worked with SSTC to identify non-compliant tire retailers and gained full compliance through issuing written warnings and site visits. In 2001-02, 13 communities joined Phase II of the Scrap Tire Management Program to remove and recycle scrap tires stockpiled at municipal landfill sites, bringing the number of communities participating in the program to 60.

Similar to SSTC, the Saskatchewan Association for Resource Recovery Corporation (SARRC) is a non-profit, non-government corporation formed by the oil and filter industry in Saskatchewan to develop, implement and maintain a province-wide Used Oil Recycling Program. In 2001-02, 34 EcoCentres and over 250 used oil collection facilities in more than 150 Saskatchewan communities recycled 193,425 kilograms of oil containers, 1.68 million oil filters and 15.9 million litres of used oil.

In March 2000 the provincial government announced a $120 million, four-year Centenary Fund Program to address capital and infrastructure needs in key areas, including environmental clean-up and parks. A total of $2.3 million ($575,000 /year) was earmarked to help establish regional waste management authorities, to share municipalities' costs to close poorly sited and inefficient landfills and develop cost-effective, environmentally sound waste management facilities, recycling and collection systems.

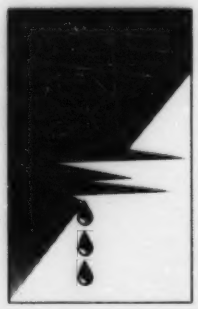
[2]Saskatchewan Environment and Resource Management, *Paper Products Stewardship Options Report, March 2001*, retrieved July 15 from http://www.serm.gov.sk.ca/environment/protection/land/finaloptionsmar2001.pdf

Two seriously contaminated or orphaned sites have been cleaned up and are ready for redevelopment: the Waite Fisheries remediation project in Buffalo Narrows (completed in 2000-01) and the Shragge Steel remediation project (completed in 2001-02). In 2001-02 the Woodland campus remediation project focused on cleaning up creosote contamination from the former Domtar wood treatment plant in Prince Albert. Environment completed a detailed investigation into the former Northern Petroleum Corporation refinery at Kamsack and, as a result, International Comfort Products agreed to join the Town of Kamsack and the Province of Saskatchewan in an agreement to fund restoration of the former refinery site. A total of $1.03 million is available and site restoration is planned for the summer of 2002. Clean up of the Interprovincial Cooperative (IPCO) contaminated site, a former herbicide chemical plant north of Saskatoon, began in October 2001. A partnership agreement involving IPCO, RM of Corman Park and SE was reached in the fall of 2001; site restoration will be completed in 2002.

The department also inventoried and conducted risk assessments of other contaminated sites, including abandoned mines to identify and assess the health, safety and environmental risks posed by old mines/waste disposal areas. Approximately 20 sites were assessed in 2001-02. Environment pursued joint funding options with Natural Resources Canada to clean up the Gunnar and Lorado abandoned mine sites.

Environment worked with the mining industry to prepare and implement decommissioning and reclamation plans (including financial assurances) for industrial sites and operating mines.

Over the past 20 years downsizing and restructuring in the petroleum industry has led to the closure of hundreds of petroleum storage tanks in the provinces. Many of them were not closed down safely. Environment worked with the Saskatchewan Association of Rural Municipalities (SARM) and the Saskatchewan Urban Municipalities Association (SUMA) to identify and clean up problem sites. Of the 400 identified orphaned fuel storage tank sites, 371 have been assessed and 30 sites remediated. Environment worked with the petroleum industry to develop funding agreements that will see industry and the province share the cost of cleaning up orphaned service stations.



Environment has a chemical spill reporting and response system in place to manage risks arising from accidents involving hazardous chemicals. In 2001-02 the Spill Line received 213 calls meeting reportable spill criteria; all spill sites were inspected to ensure proper clean-ups.

The department participated in the development and implementation of soil quality Canada-wide standards. The Canada-wide standard for petroleum hydrocarbons in soil was signed May 1, 2001 and Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health for uranium and selenium were developed and approved.

Environment produced a televised public service announcement to inform the public on the need for proper handling of household hazardous substances and waste dangerous goods. It can also be viewed at http://www.serm.gov.sk.ca/environment/protection/land.

Risk Management Strategies for Objective 3
Environment promoted the cleanup of identified high risk contaminated sites by government and industry partners. We pursued sectoral funding initiatives to clean up sites that have been orphaned or abandoned. The department reviewed and revised its environmental protection legislation to provide additional clarity and tools for protecting our land and resources.

Land-related problems often arise from non-point sources that are difficult to monitor. Environment worked with stakeholder groups to clarify roles and promoted stewardship including sound chemical and waste management and disposal strategies. We are moving to more cooperative, participatory approaches resulting in self-monitoring and compliance regimes by the private sector while maintaining an effective regulatory and enforcement framework.

Objective 4 - Minimize Risks and Adverse Impact of Wildland Fires on People, Property and Natural Resources

Wildland fires can pose significant risks to communities and timber resources. Climate change, human settlement patterns and fire suppression activities may increase the potential severity of wildland fires (i.e. Environment's "initial attack" approach) while they are still relatively small is the key to minimizing damage to people, property and natural resources.

Environment's initial attack fire suppression program to keep fires contained has proven extremely successful. Success depends on: early detection, rapid initial attack, and reliable support from aircraft. Success in fighting escaped fires depends on factors including detection conditions, number of starts, multiple fire start situations where resources cannot attack all fires, fuel volatility and type, burning conditions at ignition, proximity to resources allowing for rapid attack, the terrain, resource availability and the time of year.

The 2001 fire season saw the second-highest number of wildfires in over a decade with a total of 857 fire starts. While the rate of successfully containing fires to less than 10 hectares was down slightly, the number of escaped fires over 100 hectares was considerably reduced compared to the five-year average and an escaped rate of just 1.1 per cent represents extraordinary performance.

- In the full response zone (northern communities within the forest, and commercial timber):
  - 32,000 hectares burned (20 percent of the 10 year average)
  - The number of fire starts - 717 - was significantly greater than average.
- In the modified response zone (the area north of 57 degrees - areas of the forest where "values" e.g. Lodges, communities, commercial timber, are sparse):
  - 151,331 hectares burned (51 per cent of the 10 year average)
  - 140 fire starts (slightly higher than average)

In 2001-02, key actions in support of this objective were:

To strengthen capacity for fire fighting action, the department:

- increased initial attack personnel at La Loche, Ile-a-la Crosse, Buffalo Narrows, Big River and Dorintosh,
- worked on the acquisition of newer air tankers, upgrade hangars and tarmacs,
- added an additional bulk helicopter fuel bowser at Big River,
- improved facilities at Weyakwin and Patunak Fire Bases and started construction of an addition to the Provincial Fire Centre,
- two long term helicopters were added to bring Environment's fleet up to seven,
- built six new weather stations bordering key areas identified as priorities according to "Values at Risk" mapping,
- developed an Emergency Preparedness Plan with 17 agencies in the Prince Albert area to better co-ordinate protection of values in Nisbet Forest,
- held meetings at Brabant, Kinoosao, Southend, Uranium City, Camsell Portage and Pelican Narrows for future fuel break programs; worked with communities to reduce the threat of severe wildfire spread,

(continued next page)

***Smokey Bear** made 202 presentations, visited 154 schools and made more than 14,500 contacts in 2001-02.*

- negotiated a five-year agreement for a Northern Forest Protection Worker Training program with northern mayors, Post Secondary Education and Skills Training and Northlands College,
- sponsored firefighter training crews in 10 communities to help prepare northern people for careers with Saskatchewan Environment, and
- implemented a new approach to enhance dispatch efficiency and resource management.

Fifty of the province's 51 fire detection towers were decommissioned after an independent inspection determined the towers to be unsafe.

One hundred and sixty SE staff helped with fire control in other provinces and states under the Mutual Aid Resources Sharing Agreement between provinces to share resources (e.g. aircraft, staff) when a province's resources are fully utilized or exhausted

Consultations with affected stakeholders on roles and responsibilities were completed prior to Cabinet approval of the Fire, Forest Insect and Disease Policy. A five-year strategic plan for southern Saskatchewan was developed to deal with issues identified in public policy consultations. Preliminary meetings were held to develop amendments to *The Prairie and Forest Fires Act, 1982* and The Forest Fire Contingency Fund Regulations.

The department worked to educate communities, individuals and other government agencies on their responsibilities and roles in mitigating the threat to lives and property from wildfire including:

- Spring Burning Permit and fire prevention advertising done throughout forest fringe and northern Saskatchewan,
- feature articles prepared through Environment's Newsline program were delivered to Saskatchewan newspapers,
- Firewatch posters were developed to educate people on what they can do to protect themselves from fire,
- worked with SIAST to develop a video on Wildland Fire Suppression Training in the Wildland/Urban Interface,
- fuel reduction projects and consultation work was carried out in: Wallaston Lake, Kinoosao, Candle Lake, Pelican Narrows, Waterhen Reserve, Chitek Lake, La Plonge and Hudson Bay, and
- partnered with the Prince Albert Grand Council and the federal government to offer community protection workshops in Prince Albert and Buffalo Narrows.

Environment funded fire science positions in the Saskatchewan Forest Centre, sponsored research into Saskatchewan fire regimes and developed a model to determine the potential risk of fire to existing values.

Risk Management Strategies for Objective 4
SE identified the following actions to address issues that may impact our ability to ensure the adverse impact of Wildland fires are minimized:

- climate change related mitigation strategies range from international and national strategies to provincial and local ones. SE is helping to develop provincial strategies with other government departments and agencies.
- investment in the prevention, detection, and initial attack components of the fire program will help to minimize the number of escaped fires. These measures are the most effective for reducing overall fire program costs.
- in the event of multiple fire starts under severe burning conditions, SE focuses fire suppression activities where the greatest threats to most critical values at risk are identified (e.g. human communities).
- reduce the severity of fire conditions by prescribed burning and the harvesting practices of forest companies.
- provide guidance to communities, individuals and other government agencies on their responsibilities and roles in reducing the threat to lives and property from wildfire.
- investments in fire science may produce new strategies and techniques to limit the number of fires that escape while allowing for the managed application of the ecological benefits of fire.

Goal 2 - Ecosystem Health and Natural Abundance of Renewable Resources

Objective 5 - Species and Habitat at Risk are Protected

Saskatchewan is facing the potential loss of existing species due to habitat loss and resource use conflicts. Protection and management of natural habitats and wildlife populations is required to help our province's threatened species.

In 2001-02 key actions in support of this objective included:

A draft strategy *Conserving Saskatchewan's Species and Ecosystems at Risk: An Ecosystem Approach* was produced to quantify resources conserved by adopting an ecosystem approach. Progress was made to develop spatial models to predict the occurrence of plant species at risk. The department worked with forest industry, outfitters, resource users, Aboriginal groups and the public to increase awareness of species at risk, their habitat requirements and related legislation to promote the identification and protection of designated rare and endangered species and their habitats. Endangered species and their habitats were routinely considered in development proposals of forest companies and industry.

The department worked to develop an agreement with Environment Canada on species at risk. Effective March 31, 2002 provincial endangered species legislation had been passed and a proposed new Federal *Species At Risk Act* was pending.

In 2001-02 the department worked to identify species and habitats at risk and establish recovery programs including:

- conducted surveys on land suspected to contain species at risk or threatened plant communities. For example, a survey on 53,485 hectares of land with known occurrences or potential sites of rare plants in the Missouri Coteau region revealed that approximately 28 per cent (2,007 hectares) had come under cultivation.
- 310 water basin sites were searched during the International Piping Plover Census (conducted once every five years); 805 adults were counted - a 40 per cent decrease from 1996. Saskatchewan's piping plovers now account for 27 per cent of the population across the Great Plains, down from 41 per cent in 1996. Shoreline and native range assessments were conducted along 30 high-priority basins for piping plover to assist recovery efforts.
- a Woodland Caribou Recovery Working Group (comprised of environmental, Aboriginal, forest, mining, oil and gas, and government representation) was established to develop a provincial caribou recovery plan to protect or recover woodland caribou habitat. The plan will be integrated into a national recovery effort for boreal forest Woodland Caribou. An area north west of La Ronge was designated as a Woodland Caribou Sensitive Resource Zone.
- environmental impact studies on three developments (SaskPower's PA8 line and two highway projects) revealed negative impacts to rare plant species and alternative routes were located.
- no new priority species were identified and advanced to Committee on the Status of Endangered Wildlife in Canada (OSEWIC) for national listing consideration in 2001-02. The status of four species was re-examined - one of them, Buffalograss (Buchloe dactyloides) is to be listed as a species-at-risk under Saskatchewan's *Wildlife Act* in 2002.

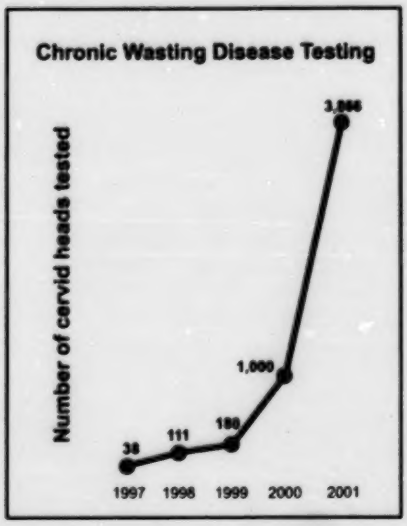
Just under one million hectares of land were designated in 2001-02 as part of Saskatchewan's Representative Areas Network (RAN) - a system of ecologically important lands and waters preserving representative examples of our native landscapes. The designations were:

- 601,983 hectares of land in three areas in the far north were provided with interim protection as Special Management Areas under *The Provincial Lands Act* while discussions on boundaries and allowable activities took place as part of the Athabasca Basin Land Use Plan.
- over 320,000 hectares in the Provincial Community Pasture System were recognized under a Letter of Understanding that pastures will continue to be managed to maintain their ecological integrity.

This brings the total number of hectares that have been recognized or designated as part of the RAN to 5.4 million hectares or just over eight per cent of

the province's land base. An important milestone was achieved in 2001-02 - each of Saskatchewan's 11 ecoregions[3] now has some protected area contributing to the network. Management plans are in place for each of the designated Representative Area Ecological Reserves.

In 2001-02 the department signed three conservation agreements encompassing 108 hectares.



Regulations under *The Wildlife Habitat Protection Act* (WHPA) were amended to allow forestry to be used to manage habitat (e.g. permits that limit softwood harvest). Future activities will include the development of a more comprehensive forest management policy on WHPA lands. WHPA currently protects 1.38 million hectares of Crown land considered important to wildlife in Saskatchewan's agricultural zone.

Environment secured 3,435 hectares of wildlife habitat through the Fish and Wildlife Development Fund (FWDF), bringing the FWDF cumulative total to 76,487 hectares, of which 13,355 hectares are co-owned by other conservation agencies.

An example of what the department did to manage and restore habitats necessary to maintain species populations includes Rafferty-Alameda mitigation work. In 2001-02 completed mitigation work around the Alameda Reservoir included: converting 101 hectares of cultivated land to woodland habitat and 464 hectares of cultivated land to grassland habitat, maintained 389 hectares of previously established woodland habitat, underseeded 65 hectares of woodland habitat with native grass, and prepared 100 hectares of cultivated land for woodland planting.

The 2001 Chronic Wasting Disease (CWD) Management Program consisted of province-wide surveillance to detect the disease, intensive detection efforts in seven high priority areas and a herd reduction project in a portion of Wildlife Management Zone (WMZ) 46, south of Lloydminster.

Approximately 3,800 five dollar coupons were issued to hunters as an incentive to turn in cervid heads to be tested for CWD. Saskatchewan hunters submitted more than 5,300 heads (a 40 per increase from 2000-01) from wild elk, white-tailed deer and mule deer to Saskatchewan Environment offices across the province. (Twenty-three per cent were not suitable for testing, e.g. fawns.) The Canadian Cooperative Wildlife Health Centre's lab at the University of Saskatchewan's Western College of Veterinary Medicine analyzed brain tissue samples for CWD. Effective March 31, 2002 two wild deer had tested positive for CWD.

Communication messages informing the public that CWD poses no known risk to humans or traditional livestock and a list of simple precautionary procedures to reduce/eliminate any potential risk were distributed via meetings and seminars with the public, wildlife interests and various government agencies, news releases, media briefings and interviews, brochures, posters, announcements and print advertising in newspapers.

The new *Wildlife Habitat Amendment Act, 2002* will allow some exchange of wildlife lands to honour commitments. The Wildlife Habitat Lands Disposition and Alteration Amendment Regulations, 2001, allowing some dispositions to occur on wildlife habitat protected land came into effect; amendments to the Representative Areas Ecological Reserve Regulations were pending effective March 31, 2002.

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[3]Ecological land classification system describes the landscapes of Saskatchewan using physical and biological characteristics as well as human activities to determine ecologically distinctive areas. The broadest level of classification is the ecozone: Saskatchewan has four ecozones which can be further refined into 11 ecoregions.

Risk Management Strategies for Objective 5
SE identified the following actions to address issues that may impact our ability to protect species and habitat at risk:

- identify and recover species at risk and reduce or prevent fragmentation through habitat protection programs.
- work with forest industry to ensure forest developments maintain important habitats through techniques such as 20 year plans, environmental review, standards and forest effects monitoring.
- continue to review oil, gas and mining developments to ensure impacts are minimized and mitigated.
- monitor the health of SE lands and other important habitats.
- the Saskatchewan Drinking Water Strategy's source water protection component will contribute to habitat protection.
- control exotic species and restore impacted lands.

Objective 6 - Biodiversity and Ecosystems are Sustained

Biodiversity (short for biological diversity) refers to the variety of living organisms and natural processes in an ecosystem. Natural processes help ensure clean air, water and land and promote the productivity of natural renewable resources. Since development can have an adverse impact on biodiversity, and the benefits it brings, SE encourages the protection of biodiversity through various developmental review and permit systems.

The province has 544 species of animals (430 bird, 87 mammal, eight amphibian, and 19 reptile); 84 species of fish in more than 50,000 waterbodies; 2,269 species of vascular plants, 283 species of nonvascular plants and an estimated 20,000 species of insects.

In 2001-02 key actions in support of this objective were:

The department worked to assess, report on and protect watershed ecological integrity and restore natural functions to watersheds:

- the Saskatchewan Network of Watershed Stewards (SNOWS) was formed to coordinate approaches among federal, provincial and non-government organizations, provide easy access to information and foster public involvement in the management and protection of watersheds. In 2001-02 SNOWS developed fact sheets, initiated speaking engagements, organized workshops, identified funding sources, and operated a website with links to the Stewardship Canada web portal.
- an aquatic classification framework was developed for the Assiniboine watershed to aid in fisheries management, aquatic monitoring and biodiversity conservation planning.
- improvements were made to Arm River, Bone Creek, Summit Creek and several tributaries in the Assiniboine River basin through the Habitat Protection and Restoration Program.

The department promoted awareness of the ecological benefits gained by maintaining healthy riparian areas by providing advance planning advice on how to protect riparian areas to landowners, cattle ranchers, forest industry companies, municipal authorities, cabin owners and resort villages (e.g. Big Shell Lake Watershed Stewardship Association). Staff routinely educate forest industry personnel and the general public on riparian area management.

The department worked with the forest industry and stakeholder groups to institute a forest road management process that considers environmental conditions, fragmentation issues, long and short term access needs with a goal to rationalize road networks, decommission unnecessary roads, maintain productive forestland growing trees and reduce habitat fragmentation.

The Biodiversity Action Plan was in the drafting process in 2001-02. When complete, the Biodiversity Action Plan will recognize that conserving biodiversity is essential for maintaining a healthy environment and supporting human society now and in the future.

While there are benefits to using "exotics" for agricultural and other purposes, there is also a risk they will invade native habitat. The department worked to ensure decisions on imports - tree seedlings, wildlife and fish - are based on sound protocols that are reviewed and updated as our scientific understanding increases. In 2001-02 SE

worked with Saskatchewan Agriculture, Food and Rural Revitalization (SAFRR) to:

- develop protocols governing all imports of game farm animals. The new protocols will be subjected to expert review to ensure they are scientifically sound prior to implementation in 2002-03, and
- fund research to develop an effective test for the parasite P. tenuis in elk. The risk of importing P tenuis has been a major impediment to movement of elk across provincial borders. A commercially available test is expected to be available in 2002-03.

The department works with other organizations, land owners and managers to promote good stewardship of the landscape. In 2001-02:

- staff worked with hundreds of landowners on development (e.g. emergency grazing, shoreline alteration permits) requiring department authorization.
- $50,000 from FWDF was provided to the Saskatchewan Wetland Conservation Corporation to promote good landscape stewardship. An additional 38,000 hectares of native prairie was secured through 222 voluntary stewardship agreements.
- FWDF money was also used at Last Mountain Lake to replace a low level crossing with a bridge to allow large northern pike full access to the Big Arm Bay spawning area for the first time in decades. This action greatly increases the available spawning habitat and will strengthen the heavily fished pike population.
- SE partnered with Ducks Unlimited Canada to develop a Conservation Easement Price Discovery Pilot Project in the Upper Assiniboine River Basin. The project was implemented in February 2002 to determine a fair and equitable value that landowners would accept to maintain wetlands and riparian areas on private lands (i.e. paid conservation easements).
- the department developed the *Moose Mountain Provincial Park Forest Management Strategy* identifying the need for active management of the Park's forest in the face of impending maturity and subsequent mortality of large stands of aspen forest. A local steering committee was formed to oversee the forest harvesting implementation plan. An experimental forest harvest occurred in the winter of 2001-02.
- brochures, articles, meetings, interviews, etc. encouraged personal stewardship of biodiversity.

SE continued to develop an Index of Ecological Integrity to measure ecosystem health. A comprehensive monitoring pilot plan for ecosystem health and productivity is under development for the Shield EcoRegion. The framework involves three types of monitoring (i.e. risk assessment, ecological conditions and management effectiveness/performance measures) each with selected parameters/indicators, as well as detailed monitoring plans, actions and responsibilities. A clean water component was completed and field work was begun.

The department's spruce budworm management program sprayed 51,802 hectares in the northern provincial forest with the biological control agent *Bacillus thuringiensis var. kurstaki* (Btk). The program was successful in reducing overall defoliation rates of white spruce in the treatment areas around the Dore-Smoothstone Lakes and the Deschambault-Mirond-Amisk Lakes.

Under the Regulatory Reform Initiative, *The Resource Protection and Development Service Regulations, 1994* was reviewed for its current suitability, implications for business and impact on the economy.

Risk Management Strategies for Objective 6

SE identified the following actions to address issues that may impact our ability to sustain biodiversity and ecosystems:

- work with land owners and managers to promote good stewardship of the landscape.
- use partnerships to build the representative areas network.
- use 20 year Forest Management Plans to guide sustainable use of the forest.
- develop appropriate measures of ecosystem health so as to be able to report on progress toward objectives.
- partner through joint plans and programs like the Biodiversity Action Plan, Prairie Conservation Action Plan and Water Management Framework to address these risks.

Goal 3 - Fair Opportunity for Sustainable Use and Enjoyment of Natural Resources

Objective 7 - Equitable Allocation of Natural Renewable Resources

The department manages almost 37.7 million hectares of Crown land (58 per cent of the total provincial land base), including 35.5 million hectares of forest lands, of which 12.2 million hectares are under commercial development. As increasing population and human activities demand access to natural resources to satisfy social and economic needs, equitable allocation of resources becomes a challenge. Environment must maintain a balance between increasingly competitive demands on natural resources administered by the department and conserving these resources for future generations.

In 2001-02 key actions in support of this objective included:

Integrated Land Use Planning (ILUP) is an ecosystem-based tool that links the environment, the community, and the economy in ways that help ensure the sustainability of resources. The ILUP process becomes complex very quickly because it is expected to: integrate environmental, social and economic values, resolve conflict, build common land use objectives, ensure openness and inclusiveness, as well as adapt to global, national and local needs and preferences.

In the past, land use decisions were driven by economic development pressures. Allocation of land, timber, fish, wildlife and secondary products was ad hoc and lead to resource use pressures. It has become ever more difficult to meet demands without triggering conflict; policy didn't address competing values and multiple use demands. Land use planning works with people who are involved with and have a stake in the environment. The traditional and local knowledge of these people is invaluable to the planning process. The collection and sharing of knowledge is one way of ensuring that planning processes are understood and endorsed by the public. Effective March 31, 2002 land use planning has been completed for more than 2.5 million hectares including:

- Pasquia - 2.0 million hectares - annual evaluation indicated 44 per cent of actions initiated, 27 per cent not initiated, and 28 per cent fully implemented
- Prince Albert Model Forest (includes a model forest plan) 367,000 hectares 92 per cent of commitment dates for first annual review period met
- Manitou - 42,700 hectares - monitoring and plan review scheduled for 2006
- Great Sand Hills - 190,000 hectares

Planning processes progressed for several areas within the Provincial Forest (including areas with proposed forest economic developments), including the North Central, Nisbet, Fort-a-la-Corne and Pinehouse-Dipper planning areas. There are seven active ILUP processes involving over 10 million hectares currently underway in Saskatchewan. Both the 4.4 million hectare Amisk-Atik ILUP (south of Reindeer Lake) and the La Ronge ILUP are expected to be completed and approved in 2002. Preliminary studies of traditional land uses are underway on the 1.5 million hectare Athabasca ILUP. An information sharing agreement with the Lac La Ronge Indian Band was developed through the North Central ILUP process

Resource Population Monitoring - Environment monitored the status and use of harvested populations (e.g. fish, ungulates, forests). In 2001-02:

- staff conducted inspections of harvested forest areas to ensure the licensee is in compliance with the licence terms, the Forest Resources Management Act (FRMA) and Regulations, and other applicable legislation. Timber volumes are assigned in three types of licences: a Forest Management Agreement (FMA), Term Supply Licence (TSL) and Forest Products Permit. There are currently four FMAs in Saskatchewan; several TSLs are under development. All forms of tenure are assigned to stay within the sustainable harvest volume determined by the department. The department issued 1,332 field or timber permits in 2001-02.
- fish stock assessments were carried out at several high priority northern lakes and the information was used to develop management plans.
- aerial big game surveys are a valuable method to determine populations. There were two such surveys done in 2001-02: 1) an elk/moose survey of the Thickwood Hills and

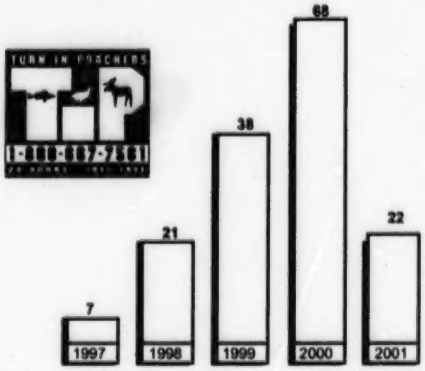
one to evaluate deer populations in the high priority Chronic Wasting Disease areas of the Manitou Sand Hills, Red Cross and Moody Lake and 2) the Thickwood Hills survey results indicated a population of over 200 elk and at least 400 moose, information that was used to support a continuation of the draw moose season and the establishment of a limited (25 licences) draw elk season.

- the department, Nekaneet and Carry The Kettle First Nations developed a cooperative process to set seasons and elk releases in the Cypress Hills (West Block)
- an evaluation of the use of strychnine to control Richardson Ground Squirrels indicated that the poison causes mortality in non-target birds; alternatives are being investigated to reduce impacts.
- in the first year of a multi-year Walleye Spawn Evaluation Study at Lake Diefenbaker, over 5,000 walleye were trap-netted and tagged to monitor movements, assess survival rates, competition success and the impact of spawn taking activities on the fisheries. Relatively low incidences of skin diseases (mostly lymphocystis) were observed.

In 2001-02 new hunting seasons proposals were recommended for consideration by the Wildlife Advisory Committee (an advisory group representing landowners, hunters, First Nations, trappers and outfitters) and the Minister.

A fish and wildlife Market Research Strategy was developed. Surveys will be conducted on a yearly basis as part of a long- term plan to collect and incorporate stakeholder considerations into decision-making and changes to policy and procedures. Two surveys were conducted in 2001-02: one asked Saskatchewan hunters' opinions on Sunday hunting, paid access to land, and other hunting-related questions, the other survey posed similar questions to landowners.

Ninety-three million walleye eggs were collected at Lake Diefenbaker for provincial stocking programs. Over 40 million fry were stocked in 85 provincial waters, with four million going to mini-hatcheries at Upper Fishing Lake and Buffalo Pound Lake. Two million walleye and eight million whitefish eggs were provided to three jurisdictions in China as part of an economic partnership. Almost one million pike fry were stocked in seven waters, 188,000 brook trout in 34 waters, 412,000 rainbow trout in 80 waters, 14,000 tiger trout in 10 waters, 70,000 lake trout in three waters, and splake were provided for 21 waters throughout the province for conservation and fishing enjoyment programs.



Number of cases handled through alternative measures.

Risk Management Strategies for Objective 7
SE identified the following actions to address issues that may impact our ability to ensure fair opportunity for equitable allocation of natural renewable resources:

- shift higher level of resource allocation decision making responsibilities to the local community level
- effective monitoring and inventory programs to guide allocation.
- use precautionary principle to avoid over allocation.
- continue to pursue active partnership and build capacity in First Nation and Metis organizations to reduce conflict (see Objective 10).
- develop an interim department system for improving client service and information management in the absence of an integrated government-wide Crown land registry.
- apply SE's co-management systems to ensure resources are allocated fairly and equitably.

Objective 8 - Accessible Recreation and Educational Opportunities on Provincial Park and Crown Resource Lands

Provincial parks and Crown lands are a public resource. It is Environment's responsibility to ensure the public has affordable access and safe, sustainable use of these resources (nine ecological reserves and a provincial park system consisting of 34 provincial parks, 137 recreation sites, 24 protected areas and eight historical sites).

In 2001-02 key actions in support of this objective included:

Environment's policy direction and five-year action plan for the management of Saskatchewan's natural and cultural resources has been set out in *The Conservation Action Plan for Saskatchewan's Park Land* (http://www.serm.gov.sk.ca/saskparks/common/CAP2001.pdf). Staff worked to:

- expand the plan to include all SE designated protected lands,
- develop new policies for research into environmental impacts of park activities,
- complete a discussion paper on the cultural integrity of SE protected lands,
- develop an aggressive vegetation management plan on park lands,
- secure St. Victor Petroglyphs (through Centennial funding), and
- hold special events to commemorate the 70th anniversary of the provincial park system.

A Provincial Park Marketing Plan was developed and delivered, contributing to a five per cent increase in park visitations. Individual park marketing plans were revised (e.g. meetings were held with the Fond du Lac Band to finalize the Athabasca Sand Dunes Provincial Park strategy and increase the community's role in possible tourism benefits). Moose Mountain and Meadow Lake Provincial Park conducted surveys to learn about and respond to the needs of their visitors. Customer satisfaction with Saskatchewan provincial parks was measured as good to excellent. Athabasca Sand Dunes, Lac La Ronge and Greenwater Provincial Parks and the Clarence Steepbank Lakes Wilderness Park received accreditation through the EcoTourism Society of Saskatchewan. Other actions under the provincial park's marketing strategy included: distributing 280,000 *Provincial Parks Guides;* commercials on 11 Saskatchewan radio stations; CTV's Park Trivia Contest; re-designed Parks website (www.serm.sk.ca/saskparks.ca); ran park promotions in cooperation with Husky/Mowhawk and CAA Saskatchewan; promoted Saskatchewan parks at travel shows in Edmonton, Calgary, Brandon, Red Deer, Lloydminister and Minneapolis; conducted a direct mail campaign with Tourism Saskatchewan to selected Alberta and Manitoba households.

Approximately $4.5 million dollars (including $2.25 million in Centenary funding) was spent on Capital upgrades and replacement of basic provincial park and historical facilities in 2001-02, including:

- new mini service centres constructed in La Ronge and Candle Lake Provincial Parks,
- potable water systems were upgraded at Duck Mountain, Moose Mountain and Good Spirit Lake Provincial Parks,
- sewage facilities were improved at Greenwater Lake Provincial Park and Cypress Hills Interprovincial Park,
- renovations were competed at Buffalo Pound's entry complex and Moose Mountain's chalet; a new administration building was completed at Makwa Lake Provincial Park, outdoor program centres were completed at Saskatchewan Landing and Duck Mountain,
- interpretive trails were developed at Meadow Lake, Saskatchewan Landing and Good Spirit Lake, and
- approximately $300,000 was directed to minor facilities upgrading throughout the park system.

Centenary fund expenditures included:

- a new administration/visitor complex was constructed at The Battlefords Provincial Park,
- renovations on the chalet at Moose Mountain Provincial Park,
- new signs and walkways at St. Victors Petroglyphs Provincial (Historic) Park,
- completed improvements to Cypress Hills Interprovincial Park trails and the amphitheater,
- completed repairs to the Rapid River canoe route in Lac La Ronge Provincial Park, and
- new playground structures were purchased for the park system.

Regional parks received $500,000 of Centenary funding and $408,000 through the Centennial Student Employment Program which enabled them to hire 136 students.

The private sector invested more than $1 million in the park system. Two major projects were a new golf course/club house at Saskatchewan Landing Provincial Park and grass greens/irrigation system at Cypress Hills InterProvincial Park.

In 2001-02 the park system benefited from an estimated $1.2 million worth of partner contributions such as service-in-kind and product donations. For example:

- Campground Hosts volunteered at 17 campgrounds.
- SE, Indian and Northern Affairs Canada and Nekaneet, Carry the Kettle and Waterhen First Nations agreement saw Aboriginal park interpreters working with Environment Park Interpretive Staff to do research and develop Aboriginal Cultural Programs that were delivered to park clients at Cypress Hills and Meadow Lake Provincial Parks.
- Saskatchewan Parks and Recreation Association contributed to the development of the Trans Canada Trail through Rowan's Ravine Provincial Park and funded six performances by Saskatchewan Express.
- LaRonge Ski Club worked to enhance cross country ski trails.

More than 103,000 people attended park interpretive/educational programs. A report on the gaps in park educational materials in relation to school core curriculum was completed and educational materials for Condie Nature Refuge were developed.

Key risk strategies for Objective 8 are:
SE identified the following actions to address issues that may impact our ability to ensure accessible recreational and educational opportunities:

- continued implementation of the Conservation Action Plan for park lands.
- involve the public and encourage partnerships in planning, developing and managing recreational opportunities on park lands and Crown resource lands.
- work closely with Tourism Saskatchewan in tracking trends for park use, in attracting different clients, retaining and, where possible, expanding the current park/outdoor recreational plan.
- involve public advisory groups in the review of development and management directions.
- focus capital funding on core facilities.

Objective 9 - Increased Economic Benefits Based on Sustainable Use of Natural Renewable Resources

It is an ongoing challenge to maintain a balance between Environment's mandate to conserve, protect and sustain natural renewable resources and meet demands for development on the same resources.

The primary forest industry is responsible for 13,600 direct and indirect jobs and ships more than $700 million worth of primary forest products annually.

Wildlife hunting and viewing generates over $62.8 million in annual economic activity, supporting over 7,900 direct and indirect jobs. Total revenue to the government from non-resident big game hunting licence sales exceeded $1.6 million; direct provincial revenue from the sale of hunting and trapping licences was $6.3 million; 68,001 people purchased 176,369 licences to hunt and trap in 2001-02.

Fishing creates almost $118.4 million in annual economic activity; total provincial angling licence revenue is $5.0 million, of which $1.8 million was attributed to non-Saskatchewan resident angling licence sales, 246,224 sport anglers caught approximately 12.5 million fish. There were an estimated 63,261 anglers under the age of 16; 1,855 commercial bait, brine and net fishers harvest 4.4 million kilograms of fish per year.

A majority of non-resident anglers, about one-third of non-resident waterfowl hunters and all non-resident big game hunters use the services of Saskatchewan's 609 outfitters. In one year, the outfitting industry generates about $117 million in direct revenue, primarily in rural communities, and provides approximately 1,000 person years of direct employment while attracting about 20,000 out-of-province visitors.

Approximately 9,000 land use dispositions (leases/permits for sand and gravel, traditional resource use, wild rice land, etc.) generated $5.76 million in revenue.

According to the Saskatchewan Environment and Industry Managers Association, the environmental management and services industry generates annual sales of $252,000,000 and provides employment to 4,000 people in consulting, management services and recycling-related services.

In 2001-02 key actions in support of this objective included:

Environment conducts environmental assessments to ensure all major new developments comply with provincial standards and that the public is consulted before proposed projects are approved. In 2001-02, 74 projects were reviewed or assessed (17 carried over from previous years), one environmental impact assessment was completed, four are ongoing and five projects were deferred.

Some of the reviews conducted in 2001-02 were:

Resource and Proposal	Status
Uranium - Environmental impact assessments of uranium projects incorporate issues raised by both federal and provincial agencies into project specific guidelines to assist proponents conduct environmental impact assessments (EIA) and prepare environmental impact statements (EIS). This allows the requirements of both the federal and provincial approval processes to be met and subsequent reviews coordinated.	
• McClean Lake Uranium Development - to dispose of reactive waste rock from the Cigar Lake mine in the mined-out Sue C pit	EIS undergoing technical review
• Rabbit Lake Uranium Development - to mill Cameco's share of the Phase I Mine Plan ore from the Cigar Lake Uranium mine	Project withdrawn
• JEB mill production - to increase rate from six million to eight million pounds per year	Approved
• COGEMA Resources - to decommission Cluff Lake Uranium Development	Technical review conducted
Other Mining Projects	
Gold - construct a new tailings management facility in Triangle Lake.	EIS underwent technical and public review. Ministerial decision documents in preparation.
Gold - revisions to the Goldfields Mine project (former Box mine site) near Uranium City	Proponent is preparing response to identified deficiencies
Coal - expansion of three Luscar Ltd. coal mines	Changes to existing EIAs reviewed and approved
Potash - PSC Lanigan Potash Mine researched alternate tailings management processes	Per requirement of 1999 approval
Forestry	
Tolko Industries and partners' Meadow Lake Oriented Strand Board Plant	EIA approval pending
Intensive Livestock Operations (ILO)	
• Seven ILOs (mainly hog operations) were reviewed.	
Energy-related projects	
• Ten projects (e.g. SaskPower's PA8 Transmission Line from Prince Albert to Timber Cove, SunBridge Wind Farm at Gull Lake) were reviewed.	
Oil and Gas	
• Fifteen detailed drilling proposals representing about 150 wells in environmentally sensitive areas (e.g. Great Sand Hills, Manitou Sand Hills, Cypress Hills and the Big Muddy and Frenchman valley areas) were reviewed. • A proposed new gas development in the Great Sand Hills was subject to a full EIA. • Other oil and gas proposals included a seismic program in the Manitou Sand Hills and gas plants that allow previously flared gas to be cleaned and recovered. One landfill for disposal of non-hazardous upstream oilfield wastes was also reviewed.	

Forestry Development - 4.42 million pine and spruce seedlings were planted in the Provincial Forest as part of an ongoing renewal program. Silvicultural equipment was used to prepare 2,600 hectares of land for tree planting and "stand tending" was conducted on 864 hectares of land within the Provincial Forest. Programs such as tree planting, management planning and extension services involved landowners and managers in good stewardship practices. The department worked to diversify resources and reclaim cleared forested areas by providing seedlings to landowner organizations for distribution to their members.

The department partnered with Northern Affairs, Northwest Communities Wood Products and local communities to conduct a forest inventory of lands in the northwest using satellite imagery, aerial photos and ground sampling. The final product, including a database of timber volume information, satellite images, and a wood supply analysis, will be made available to local companies, band councils and government agencies.

Fisheries - The department studied and promoted the use of specialized fish trapnets that allow the harvest of targeted portions of fish populations used in specialty fish products. Field testing and calibration of new hydroaccoustics-sonar equipment was conducted at Candle Lake. The equipment enables the department to assess fish stocks, lake productivity and biomass more efficiently. The information, used in conjunction with productivity and client use information, will help the department set scientifically-based conservation and allocation limits.

Environment worked with SAFRR to draft aquaculture policy to provide over all government direction to aquaculture operators.

The department worked to identify and facilitate sustainable development of environmental and renewable resource based business opportunities. For example, a committee was appointed to recommend ways to enhance outfitting opportunities for northern residents. Environment worked closely with the outfitting industry to share information on programs, policies and regulations that impact them through regular publishing of the *Outfitting Today* newsletter.

Oil and Gas - 2001-02 saw a continuing increase (40 per cent more reviews) in the level of oil and gas development in the province, including activity in areas considered to be sensitive. Environment ensured all major new developments met the licensing commitments specified under the Environmental Impact Assessment (EIA) approval or other licences/permits. All oil and gas projects on Crown land (and projects on private land that raise environmental concerns) undergo a detailed evaluation under *The Environmental Assessment Act.*

SE collaborated with other agencies and with industry to clarify expectations and help developers understand the oil and gas project review process. For example SE:

- worked with Saskatchewan Economic and Cooperative Development (http://www.ir.gov.sk.ca) to develop an on-line outline of Saskatchewan's regulatory approval process for petroleum and natural gas well drilling,
- joined with industry to publish *Required Qualifications: Field Environmental Monitors for Oil and Natural Gas Exploration and Development Projects, January 2002,*
- sponsored an annual open house with oil and gas industry representatives to discuss environmental assessment issues, and
- worked with SAFRR to harmonize review procedures of projects on SAFRR-administered Crown land

Risk Management Strategies for Objective 9

SE identified the following actions to address issues that may impact our ability to increase economic benefits based on sustainable use of natural renewable resources:

- work with the existing forest industry in the province, potential industry expansion partners, northern leaders, provincial and federal government agencies, and financial institutions to develop and implement coordinated forest sector expansion plans.
- implement a provincial forestry centre for the purpose of matching existing and emerging technologies to expanding forest industry needs, to market Saskatchewan forestry expertise and improve forestry education and employment opportunities for northern residents.
- continual public involvement in the natural resource development.
- improve ecologically based operating and resource management guidelines along with auditing of compliance.
- maintain a focus on sustainable economic development that is consistent with maintaining the overall health of the forest ecosystem.
- develop sound policy base to provide assurance of government direction to aquaculture operators.
- conservative allocation to ensure populations use is sustainable.
- maintain a sustainable provincial park system including a long term facility renewal program.
- ensure designation and protection of natural areas through integrated land use planning.
- develop and implement marketing plans to increase internal and in-bound tourism in conjunction with Tourism Saskatchewan.

Objective 10 - First Nations and Metis rights and their interests in the use of natural resources are met through cooperative means

First Nations and Metis people have distinct constitutional and legal rights to fish and wildlife resources.

In 2001-02 key actions in support of this objective were:

The department worked to build relationships and enhance the involvement of Aboriginal people in co-management of natural resource use and integrated land use planning. As requested and through agreement, staff worked with Aboriginal communities on a range of renewable resource issues and projects. Most northern Aboriginal communities have access to local public advisory committees as an avenue to work on local resource issues and projects, including outfitting concerns, allocation and licensing, forest harvesting proposals and allocation, land use issues, Treaty Land Entitlement selections and resolution, commercial fishing concerns and quotas and protection for spawning fish.

SE, Indian and Northern Affairs Canada and the Federation of Saskatchewan Indian Nations (FSIN) are partners in the FSIN Resource Management Program to build cooperative environment and resource management policy, planning and program development and delivery. The program employs nine First Nations personnel, three of whom work in SE offices. Highlights of 2001-02 activities included:

- developing a protocol for Conservation Officers (COs) entering reserves for enforcement purposes
- working to develop a First Nations Conservation Officer degree program at the Saskatchewan Indian Federated College in Regina
- assisting First Nations people wanting to establish sustainable outfitting businesses, and
- hosting a First Nation Elders workshop on climate change.

The bi-lateral task force, co-chaired by the Minister and the FSIN Vice-Chief of Lands and Resources, was active in identifying enforcement issues that could be jointly resolved without resorting to the courts.

The Saskatchewan Environment Metis Nation of Saskatchewan (MNS) Partnership supported the work of a MNS Lands and Resources coordinator. The parties collaborated on the Buffalo Narrows Fish Sanctuary a model of local community management emphasizing partnership between the department's West Boreal EcoRegion and MNS Northern Region II. The success of the initiative lead to a more ambitious and complex project. The renewable resource management pilot program for northwest Saskatchewan (to be implemented in 2002-03) ensures resource management that respects Metis Aboriginal right to hunt and fish for food recognized by the 1997 Saskatchewan Court of Queen's Bench decision in Morin and Daigneault.

Both of the partnership agreements were reviewed in 2001-02. Resulting recommendations are expected to enhance and build upon the current cooperative relationships.

The Treaty Land Entitlement (TLE) process enables First Nations to purchase land to meet their shortfall, equity and honour acres. SE processes TLE claims on Crown resource lands. In 2001-02:

- 275 requests for new selections and re-selections were processed; one band received their shortfall acreages and created a reserve (bringing the total number of bands who have achieved shortfall acres to 17).
- process revisions were made to create a consistent and equitable approach to reviewing lands important to wildlife that have been selected for TLE purposes.

Environment processed *The Treaty Land Entitlement Amendment Regulations, 2001* permitting the withdrawal of certain lands listed under *The Wildlife Habitat Protection Act* for the purpose of fulfilling Treaty Land obligations.

Saskatchewan Environment's Aboriginal Advisory Committee (AAC) was established in 2000-01 to identify Aboriginal issues at the corporate level, advise and recommend action and facilitate resolution of issues to make progress on Objective 10. In 2001-02 the AAC focused on accountability for Aboriginal-specific initiatives, improving communications and recruitment and retention of Aboriginal staff. A recruitment video, *The Sky is the Limit*, was produced to attract Aboriginal students to purse careers with Environment. AAC

members attended career fairs and organized the first Aboriginal Youth camp for 20 students in July 2001. The camp focused on traditional Aboriginal approaches to environmental stewardship and contemporary approaches in fire management, fish and wildlife management and conservation.

Environment staff facilitated/developed:

- 125th anniversary celebration of Treaty Six at Fort Carlton Provincial Park
- tourism initiatives with First Nations (e.g. tipi rentals for snowmobilers, shuttle service between Moose Mountain Provincial Park and White Bear First Nation)
- an agreement with three local First Nations in the Wadena area on fisheries management on Fishing Lake
- a national symposium on Aboriginal Involvement in Renewable Resource management in Regina May 15-17, 2001. More than 120 participants from across the country came together to share best practices and policies. Symposium proceedings, evaluation summary, links of interest and more are available at http://www.serm.gov.sk.ca/corporate/conferences/welcome.htm

Environment works to recruit and support a diverse workforce. Environment improves recruitment retention capacity through a "building trust and respectful relationships" approach that led to the development of a number of programs and projects that directly or indirectly further SE's diversity goals. In 2001-02 approximately 35 staff participated in the Aboriginal Cultural Awareness program (ACAP) bringing the number of SE employees who have participated in ACAP training to 300.

In conjunction with the Public Service Commission, the department developed the Conservation Ranger program where Aboriginal students beginning post-secondary schooling "shadow" Conservation Officers (CO) for two to three months to get a first-hand understanding of CO roles and responsibilities.

A traditional land use study was conducted as part of the Pinehouse-Dipper ILUP. Traditional and local knowledge was gathered through interviews with Elders, commercial fishers and trappers. The information will be used in land use planning and enhanced harvest data collection.

Risk Management Strategies for Objective 10
SE identified the following actions to address issues that may impact our ability to ensure First Nations and Metis rights and their interests in the use of natural resources are met through cooperative means:

- emphasize cooperative arrangements with Aboriginal organizations at the provincial, tribal council and Band levels.
- support capacity building with First Nations and Métis to develop expertise in the resource management sector that will assist in better resource management decision making.
- enter into formal partnership agreements with First Nation and Metis organizations to facilitate dialogue, consultations, and mutually beneficial decision-making.
- emphasize recruitment and retention partnerships with Aboriginal organizations that will enhance the level of mutual trust and respect between the communities.

Integrating Actions in Support of Environment's Goals

The department averaged 847 full time, 75 part-time, 139 casual/term and 423 labour service staff in 2001-02. We maintain offices in 52 communities throughout the province.

Goal A

Saskatchewan Environment has two communications goals. Encourage sound environmental decisions that leave people satisfied with the decision-making process and that maintain good relationships.

Accountibility:
A key factor in maintaining good relations is being accountable to stakeholders and the public. Approximately 17 per cent[4] of Saskatchewan residents think the single most important step the Government could do to increase public accountability would be to increase public disclosure and be more open to the public. The department recognizes that an important aspect of being accountable for our performance is ongoing reporting to stakeholders and the public on the department's goals, progress toward achieving those goals,

[4]Saskatchewan Executive Council *Government of Saskatchewan Public Opinion Polling from Jan/02 March/02; (retrieved June 4/02 from http://www.executive.gov.sk.ca/polling/Jan2002.pdf)*

information on ongoing programs and activities, responding to questions, and informing and involving people in the decision-making processes. Some actions taken in 2001-02 that contributed to the department's accountability were:

- improvements to the Annual Report - according to the Provincial Auditor, "The Department's 2000-01 Annual Report clearly outlines the Department's vision, mandate, goals, objectives, and its activities to achieve its objectives. The 2000-01 Annual Report also describes the risks the Department must manage to be successful and some of the strategies it uses to do so. We think this is a good step forward."[5]
- in 2001-02 SE received a positive response when we asked our stakeholders for their opinion on the department's strategic goals and objectives as outlined in the department's 2001-02 strategic plan. Future strategic planning will focus on finalizing some performance measures based on the revised mandate of the new Saskatchewan Environment department (until March 26, 2002 known as Saskatchewan Environment and Resource Management). Consistent with the government's Accountability Framework, SE worked to produce an internal progress report on the performance targets for Cabinet.
- *Saskatchewan's State of the Environment Report 2001 - The Taiga Shield Ecozone: Land of the Caribou* was tabled in the legislature on April 9, 2001. The report focuses on the Taiga Shield Ecozone, providing information on Saskatchewan's most northern ecozone (e.g. current environmental trends, conditions, emerging issues). State of the environment reporting is intended to inform the people of Saskatchewan about the status of the province's environment and its resources. It helps us understand how well we, as a society, are managing our environmental impacts and how we are progressing towards sustainable development. Work began on the 2003 State of the Environment report, which will focus on the entire province.
- SE developed a branding program to more clearly position the department. For instance, the branding statement "Conserving Nature through Science and Consultation" helps increase public understanding of the department's responsibility and of how decisions on environmental management are made using the best available science and with public awareness and participation.
- issued 61 news releases and 42 weekly Newsline feature articles on environmental stewardship. The department took steps to become more proactive in dealing with the media and getting our messages to the public. As a result, the department doubled the number of electronic and print news items and received more than four times as many media inquiries than the previous year.
- Environment's Inquiry Centre received more than 18,200 phone calls and 3,800 e-mails in 2001-02. The department's website (www.serm.gov.sk.ca) had close to 3.5 million hits, an increase of 0.5 million from the previous year.

Public Satisfaction:
Saskatchewan people are satisfied with how well the environment is being managed.
Saskatchewan residents ranked Environment first (61%) when asked how much they approve of the way the provincial government is handling various issues.[6]

The department works to ensure the residents are satisfied with the decision-making processes by seeking input and participation from stakeholders, Aboriginal people and the public in decisions on environmental management policies and programs through surveys, workshops, advisory groups, and meetings. The majority of residents (58 per cent) are satisfied with their opportunity to participate in decision-making processes affecting the environment on a local basis, fewer people (39 per cent) are satisfied at the provincial level.[7]

Encouraging Sound Environmental Decisions:
Examples of how the department encouraged sound environmental decisions are found throughout this publication within narratives relating to specific department objectives. An example of such an action would be the seven seminars held under the SEIMA-SE Environmental Management Seminar series to provide industry with information on environmental management and related issues affecting Saskatchewan. More difficult to measure, however, is how these activities affect individual personal behaviour. Change indicators can be monitored according to various categories.

[5]Provincial Auditor of Saskatchewan, *2001 Fall Report, Volume 2, p. 263.*
[6]Saskatchewan Executive Council, *Government of Saskatchewan Public Opinion Polling from Jan/02 March/02*; retrieved June 4/02 from http://www.executive.gov.sk.ca/polling/Jan2002.pdf.
[7]Arcas, *SERM Public Opinion Survey, April 2000, p. 18*

For example:

Voluntary:

- 139,713 (45 per cent) of anglers reported that they practice some degree of "catch and release" fishing
- milk containers were added as a voluntary material (i.e. no deposits or environmental handling charge imposed by government) to be removed from the waste stream in 2001. In one year the program recycled 245,926 kilograms of plastic (4,012,080 containers), a voluntary return rate of 29 per cent.

Financial Incentives:

SE contracts SARCAN to operate the province's 70 depots in 62 communities that collected over 217 million beverage containers (an 83 per cent return rate), reducing Saskatchewan's waste by more than 12 million kilograms and returning more than $26 million to the economy.

Standards:

In 2001-02 there were 547 classified water works (528 municipal and 19 "other" large private systems) - 93 per cent of Saskatchewan's 528 municipal drinking water systems met minimum treatment requirements. High-risk sites (sites with positive bacteriological tests or where PDWAs have been issued) were inspected more frequently. For example, 24 (10 per cent) of the communities within Grassland EcoRegion had problems deemed a high risk at year end. All these communities were operating under PDWAs or Boil Water Orders and approximately half were making progress to address their challenges.

Regulation and Enforcement:

In 2001-02, there were:

- 28 warnings and six charges under *The Prairie and Forest Fire Act*
- 267 warnings and 531 charges under *The Fisheries Act* and Regulations
- 267 warnings and 447 charges under *The Wildlife Act* and Regulations
- 253 warnings, 230 charges and 152 evictions under *The Park Act* and Regulations
- 35 warnings and 13 charges under regulations pertaining to guides and outfitters
- 35 warnings and 5 charges under Migratory Birds regulations
- 11 forestry prosecutions resulting in $18,685 in fines; six forestry administrative penalties resulting in $15,276 in fines; and 115 warnings under *The Forest Resources Management Act*

(Please note: figures are subject to change depending on the results of investigations)

Goal B

SE's other major communication goal is internal communications that improves the effective and efficient operation of the organization.

The department:

- redesigned the intranet to ensure staff have easy access to timely, relevant and appropriate information.
- conducted a second bi-annual employee survey in June 2001. Survey results indicated what staff like most about working at Environment was: interesting work, job diversity/variety, the people they work with, challenging and personally satisfying work. Employees also indicated that they feel able to use their creative potential at work.
- held workshops to further staff understanding of ecosystem-based management concepts and prioritized issues at the resource area level. This approach supports continued development and implementation of integrated resource area plans that address environment and natural resource issues at an appropriate scale.
- developed an in-house training course to improve employee's ability to help and interact with the media. Approximately 40 staff participated in this training in 2001-02.

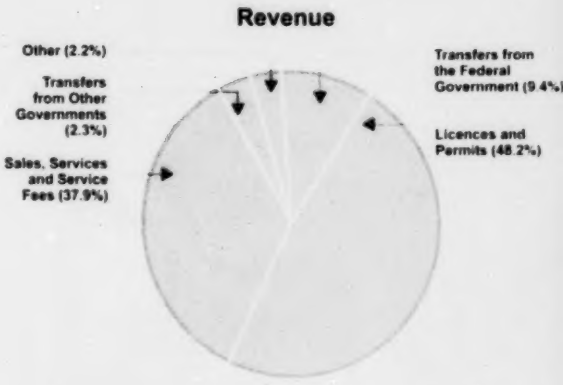
Financial Overview

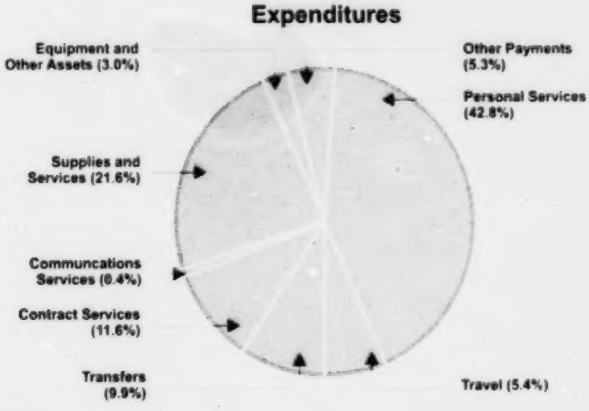
The following represents an overview of Environment's financial activity. In 2001-02 the department spent $137,428,000 and collected $40,126,000 on activities related to its mandate.

Government's standard for timeliness of payments (payments to suppliers) is 90 per cent of all invoices paid within 30 calendar days of receipt of the invoice or goods. Environment's average in 2001-02 was 93.4 per cent.

Revenues 2001-02
Period Ending March 31, 2002 (in $000's)

Transfers from the Federal Government	3,754
Other Revenues:	
Interest, Premium, Discount, and Exchange	18
Other Licences and Permits	19,360
Conditional Revenue	-
Revolving Fund Profits	-
Sales, Services and Service Fees	15,185
Transfers from Other Governments	942
Other	867
Total	**$ 40,126**


Revenue
Other (2.2%)
Transfers from Other Governments (2.3%)
Sales, Services and Service Fees (37.9%)
Transfers from the Federal Government (9.4%)
Licences and Permits (48.2%)

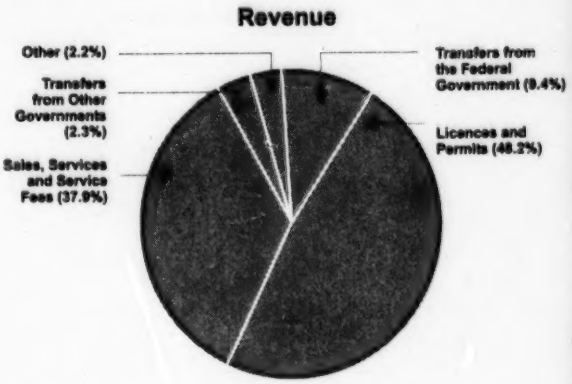


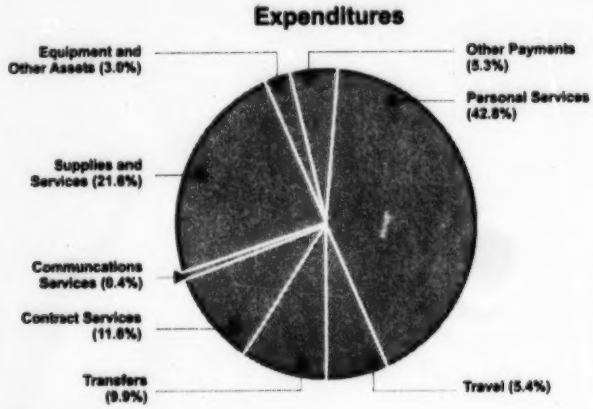
Expenditures 2001-02
Period Ending March 31, 2002 (in $000's)

	Personal Services	Travel	Transfers	Contract Services	Commu-nications	Supplies & Services	Equipment & Other Assets	Other Expendi-tures	Total Expend. (Actual)	Revised Estimate	Over (Under) Expend
Administration	6,055	306	-	103	281	478	115	(13)	7,325	7,426	(101)
Accommodation & Central Services	1	31	-	293	-	5,489	25	-	5,839	5,849	(10)
Environmental Assessment	633	37	8	29	2	33	43	-	785	787	(2)
Parks & Special Places	2,225	237	75	1,601	2	558	217	-	4,915	4,916	(1)
Fish & Wildlife	2,716	386	635	599	65	1,067	74	-	5,542	5,547	(5)
Fish & Wildlife Development Fund	-	-	3,279	-	-	-	-	-	3,279	3,360	(81)
Operations	20,038	3,201	10	888	50	3,412	1,049	6,415	35,063	35,094	(31)
Forest Ecosystems	3,753	677	30	8,693	66	565	223	598	14,605	14,652	(47)
Fire Management & Forest Protection	18,665	2,192	-	3,151	26	17,855	2,285	304	44,478	45,197	(719)
Environmental Protection	2,175	150	9,533	69	10	146	54	-	12,137	12,146	(9)
Policy and Public Involvement	1,293	61	42	399	1	44	24	-	1,864	1,871	(7)
Sustainable Land Management	1,272	128	-	77	-	107	12	-	1,596	1,600	(4)
Totals	$ 58,826	$ 7,406	$ 13,612	$ 15,902	$ 503	$ 29,754	$ 4,121	$ 7,304	$ 137,428	$ 138,445	$ (1,017)

Revenues 2001-02
Period Ending March 31, 2002 (in $000's)

Transfers from the Federal Government	3,754
Other Revenues:	
Interest, Premium, Discount, and Exchange	18
Other Licences and Permits	19,360
Conditional Revenue	-
Revolving Fund Profits	-
Sales, Services and Service Fees	15,185
Transfers from Other Governments	942
Other	867
Total	**$ 40,126**


Revenue
Other (2.2%)
Transfers from the Federal Government (9.4%)
Transfers from Other Governments (2.3%)
Licences and Permits (48.2%)
Sales, Services and Service Fees (37.9%)



Expenditures 2001-02
Period Ending March 31, 2002 (in $000's)

	[illegible]	Travel	[illegible]	Contract Services	[illegible]	Supplies & Services	[illegible]	Other Expenditures	[illegible]	Revised Estimate	[illegible]
Administration	[illegible]	306	-	103	[illegible]	478	[illegible]	(13)	[illegible]	7,426	[illegible]
Accommodation & Central Services	[illegible]	31	-	293	-	5,489	[illegible]	-	[illegible]	5,849	[illegible]
Environmental Assessment	[illegible]	37	[illegible]	29	[illegible]	33	[illegible]	-	[illegible]	787	[illegible]
Parks & Special Places	[illegible]	237	[illegible]	1,601	[illegible]	558	[illegible]	-	[illegible]	4,916	[illegible]
Fish & Wildlife	[illegible]	386	[illegible]	599	[illegible]	1,067	[illegible]	-	[illegible]	5,547	[illegible]
Fish & Wildlife Development Fund	-	-	[illegible]	-	-	-	-	-	[illegible]	3,360	[illegible]
Operations	[illegible]	3,201	[illegible]	888	[illegible]	3,412	[illegible]	6,415	[illegible]	35,094	[illegible]
Forest Ecosystems	[illegible]	677	[illegible]	8,693	[illegible]	565	[illegible]	598	[illegible]	14,652	[illegible]
Fire Management & Forest Protection	[illegible]	2,192	-	3,151	[illegible]	17,855	[illegible]	304	[illegible]	45,197	[illegible]
Environmental Protection	[illegible]	150	[illegible]	69	[illegible]	146	[illegible]	-	[illegible]	12,146	[illegible]
Policy and Public Involvement	[illegible]	61	[illegible]	399	[illegible]	44	[illegible]	-	[illegible]	1,871	[illegible]
Sustainable Land Management	[illegible]	128	-	77	-	107	[illegible]	-	[illegible]	1,600	[illegible]
Totals	[illegible]	$ 7,406	[illegible]	$ 15,902	[illegible]	$ 29,754	[illegible]	$ 7,304	[illegible]	$ 138,445	[illegible]

Resource Protection and Development Revolving Fund

provides resource protection and development services.

Unaudited Statement of Operations and Accumulated Operating Surplus (Deficit) - Year Ended March 31, 2002

		2001-02 Budget	2001-02 Actual	2000-01 Actual
Revenues:				
	Radio communications	$ 1,435,000	$ 1,663,764	$ 1,643,422
	Equipment rental and recoveries	216,155	200,637	216,385
	Staff housing	159,760	164,810	137,333
	Northern Air operations	100,000	60,360	75,331
	Spruce budworm	-	-	2,632
	Other	-	-	223
Total Revenues		1,910,915	2,089,571	2,075,326
Expenses:				
	Salaries	947,000	975,436	888,201
	Contractual services	301,124	510,641	440,404
	Amortization	301,855	330,941	329,501
	Materials and supplies	229,000	232,768	439,498
	Labour, travel and sustenance	62,700	61,212	36,345
	Other	69,236	7,362	63
Total Expenditure		$ 1,910,915	2,118,360	2,134,012
Net Income (Loss)		-	(28,789)	(58,686)
Accumulated Surplus (Deficit) - beginning of year			125,866	184,552
Accumulated Surplus (Deficit) - end of year			$ 97,077	$ 125,866

Fish and Wildlife Development Fund

was established to prevent the reduction of wildlife habitat and wildlife populations in Saskatchewan's agricultural areas and for fish enhancement projects intended to prevent the loss of fish or fish habitat. The Fish and Wildlife Development Fund now manages over 80,686 hectares of habitat important to wildlife.

Unaudited Statement of Operations and Restricted and Unrestricted Net Assets - Year Ended March 31, 2002

		2001-02 Budget	2001-02 Actual	2000-01 Actual
Revenues:				
	General Revenue Fund	$ 3,520,000	$ 3,300,796	$ 3,340,645
	Interest	168,000	151,319	209,834
	Field permits and leases	247,000	181,784	167,394
	Other revenue	20,000	78,167	42,618
Total Revenues		3,955,000	3,712,066	3,760,491
Expenses:				
	Wildlife habitat projects	1,053,000	1,081,722	1,024,991
	Fish enhancement projects	1,340,000	1,322,869	963,603
	Grants-in-lieu of taxes	230,000	264,086	213,763
Total Expenditure		2,623,000	2,668,677	2,202,357
Net Income (Loss)		$ 1,332,000	1,043,389	1,558,134
Restricted and Unrestricted Net Assets - beginning of year			4,299,163	3,714,497
Restricted and Unrestricted Net Assets - end of year			$ 4,545,661	$ 4,299,163

Commercial Revolving Fund

conducts commercial activity required for the promotion, development and management of provincial parks.

Unaudited Statement of Operations and Accumulated Operating Deficit - Year Ended March 31, 2002

		2001-02 Budget	2001-02 Actual	2000-01 Actual
Revenues:				
	Camping	$ 3,493,000	$ 3,795,016	$ 3,515,578
	Entry	1,756,000	1,871,086	1,763,505
	Cottage leases	1,530,000	1,554,071	1,541,899
	Resource management leases	517,000	756,498	720,688
	Other	499,000	387,744	399,036
	Swimming and accomodation	374,000	438,088	437,055
	Commerical leases	395,000	430,285	405,250
	Gain on disposal of capital assets	1,000	1,558	6,967
Total Revenues		8,565,000	9,234,346	8,789,978
Expenses:				
	Salaries and benefits	9,150,000	9,310,107	8,813,415
	Contractual services	2,088,000	2,372,118	2,138,421
	Supplies and service	1,466,000	1,290,973	1,356,518
	Travel and business	894,000	1,125,094	941,924
	Amortization	300,000	255,010	278,517
	Communication	193,000	188,012	204,617
	Bad debt expense	-	159,877	-
	Tools and office supplies	68,000	23,289	68,110
	Bank charges	58,000	55,956	58,392
	Maps, manuals and miscellaneous items	30,000	40,413	28,755
	Other	6,000	7,109	(12,964)
Total Expenditure		14,253,000	14,668,081	13,875,705
Gain (Loss) from Operations		(5,688,000)	(5,433,735)	(5,085,727)
	Subsidy from General Revenue Fund $	5,688,000	5,493,890	5,189,000
Net Income (Loss)		-	60,155	103,273
Accumulated Surplus (Deficit) - beginning of year			109,532	6,259
Accumulated Surplus (Deficit) - end of year			$ 9,849	$ 109,532

Forest Fire Contingency Fund

was established for the purposes of financing the expenses related to fighting wildfires in excess of 100 hectares in area.

Unaudited Statement of Operations and Changes in Financial Assets - Year Ended March 31, 2002

		2001-02 Actual
Revenues:		
	General Revenue Fund transfer	$ 40,000,000
Expenses:		
	Wages and benefits	1,601,707
	Aircraft rental	1,834,416
	Equipment rental	1,117,266
	Materials and supplies	552,852
	Other contractual services	423,449
	Aviation fuel	378,733
	Travel and sustainance	94,949
	Miscellaneous	1,830
Total Expenditure		6,005,202
Net Income (Loss)		33,994,798

Performance Plan

Overview

In 2001 SE conducted stakeholder consultations through a survey questionnaire on the department's strategic vision, goals and objectives as its long term planning framework. The strategic vision, goals and objectives were supported by the stakeholder groups in principle. But questions were raised about what actions the department was planning to achieve the stated goals/objectives, and how it would measure its performance.

The following performance plan outlines SE's long term strategic directions, and lists the performance measures for most of the objectives, and the key actions the department will implement in fiscal 2002-03 to achieve these objectives.

This performance plan is a work in progress. SE will continue to refine the performance measures for all objectives and establish targets for each performance measure to enable the evaluation of the department's performance.

Saskatchewan Environment (SE) carries the provincial responsibility to manage, enhance, and protect Saskatchewan's natural and environmental resources for conservation, social, economic and recreation purposes, and to ensure they are sustained for future generations. SE promotes stewardship of the air, land, water and wild plants and animals that are the foundation of a clean and healthy environment and a prosperous society.

Safe municipal drinking water remains a high priority for the department. Therefore, SE plans to begin immediate implementation of the North Battleford inquiry recommendations.

Good surface water is another important priority because it is the major source of municipal drinking water and other human uses. The province has passed legislation to create a new Saskatchewan Watershed Authority which is empowered, among other things, to implement actions and plans to enhance and protect the source water quality in the province.

The recent government reorganization has resulted in minor changes to the department's mandate. The administration of the urban parks program has been added and the forestry economic development function has been transferred to Saskatchewan Industry and Resources.

Consequently, the department's strategic goals and objectives remain unchanged for 2002-03 fiscal year.

Benefits

The quality of the environment, the strength of the economy and the health of Saskatchewan people are dependent on each other. SE's work to protect and manage our province's natural environment contributes to Saskatchewan residents':

Health - clean water to drink, clean air to breathe and clean, healthy land to support us.

Economic - renewable resources (forestry, wildlife, fisheries, etc.) provide employment to thousands of Saskatchewan citizens and contribute more than a billion dollars a year to our economy:

- New forestry initiatives in northern Saskatchewan will create thousands of jobs by the year 2005 and expand business opportunities.
- SE's ecosystem management creates opportunities for natural resource-based industries (forestry, hunting, fishing, outfitting, etc.) through programs that minimize negative environmental impacts.

Our efforts also support sustainable development in agricultural, mining, oil and gas, energy, and manufacturing sectors, which contribute over $9 billion to the provincial economy.

Social - The health and beauty of Saskatchewan's natural environment contribute to our physical and mental well-being. Our province's history and economy are intimately linked to the land and nature.

Vision, Goals and Objectives

Vision: A high quality environment and healthy ecosystems in perpetuity, which sustain social, health and economic well being for Saskatchewan citizens.

Goal 1 - Clean and Healthy Environment

Objective 1:	Clean Water
1.1:	Safe Municipal Drinking Water
1.2:	Good Quality Surface and Ground Water
Objective 2:	Clean Air
Objective 3:	Clean Land
Objective 4:	Minimize Risks and Adverse Impact of Wildland Fires on People, Property and Natural Resources

Goal 2 - Ecosystem Health and Natural Abundance of Renewable Resources

Objective 5:	Species and Habitat at Risk are Protected
Objective 6:	Biodiversity and Ecosystems are Sustained

Goal 3 - Fair Opportunity for Sustainable Use and Enjoyment of Natural Resources

Objective 7:	Equitable Allocation of Natural Renewable Resources
Objective 8:	Accessible Recreation and Educational Opportunities on Provincial Park and Crown Resource Lands
Objective 9:	Increased Economic Benefits Based on Sustainable Use of Natural Renewable Resources
Objective 10:	First Nations and Metis Rights and Their Interests in the Use of Natural Resources are met Through Cooperative Means

Conserving Nature Through Science and Consultation

SE views the basic components (air, water, land and organisms, including humans) and functions of ecosystems in a broad context that integrates environmental, social and economic concerns. Ecosystems consist of communities of humans, animals, plants and micro-organisms interacting with each other and with the non-living elements of their environment. We believe that science-based management of ecological systems and human activities will maintain the health and integrity of an ecosystem for all species, including humans. A key component of this approach is inclusiveness -- we can achieve better and more lasting decisions by working co-operatively with those who have an interest in the resource.

Public Involvement

SE's sustainable development approaches require the commitment and participation of all societal groups (Aboriginal groups, industry, governments, education institutions, non-government organizations and individuals). Public involvement is the means by which the department engages the public, stakeholders, First Nations and Metis in the decision-making processes used in planning, policy-making, and program development and delivery.

The department uses public involvement to: encourage awareness and understanding; request information; obtain opinions to be used in the decision-making process; improve and build the relationship between the department and other parties and/or to work with one or more parties to achieve a common goal.

SE sent a survey to about 100 stakeholder groups on the strategic goals and objectives of this plan. In all 20 responses were received. All 20 respondents agreed with the goals and objectives of the plan.

2002-03 Budget Overview

Saskatchewan Environment will spend $130.9 million in 2002-03 to deliver its programs and services throughout the province. This budget is allocated to SE's programs as shown in the table below. Not included in the information below is the Forest Fire Contingency Fund, a special fund for escaped fire[1] suppression costs.

Approximately 43 per cent of SE's budget will be spent on salaries for the department's 1280 fulltime employees. SE employs up to 2000 people during its peak summer months because of the seasonal nature of much of SE's services, e.g., park labourers and fire fighters.
The remainder of SE's budget is spent on operating costs (37 per cent); transfer payments to third party organizations (12 per cent); accommodation (5 per cent); and capital (3 per cent).

SE is also responsible for collecting over $40 million in revenue for the General Revenue Fund, with the majority of this revenue coming from environmental handling charges, forestry dues and fees, and angling and hunting license sales.

The breakdown of budget estimates includes:

2002-03 Budget
(in thousands of dollars)

Administration	$ 6,991
Accommodation and Central Services	6,063
Operations	34,614
Forest Ecosystems	12,344
Fire Management and Forest Protection	36,585
Environmental Assessment	873
Environmental Protection	13,149
Parks and Special Places	8,593
Sustainable Land Management	1,654
Fish and Wildlife	5,004
Fish and Wildlife Development Fund	3,060
Policy and Public Involvement	1,946
Total	$130,876

[1]An escaped fire is one that exceeds 100 hectares in size. A Forest Fire Contingency Fund of $40.0 M was established in 2000.

Trends and Issues

A Clean and Healthy Environment:

- Public interest is growing in the link between personal health and environmental contaminants.
- Drinking water quality has become an issue of increasing public concern. SE will lead in the overall government response to the recommendations of the North Battleford Inquiry on municipal drinking water.
- Air quality challenges include transboundary movement of air pollutants from Alberta and greenhouse gas emissions.
- Highly successful provincial recycling programs, new national standards for toxic substances, regulatory and regional processes to deal with abandoned mines and municipal wastes respectively are reducing risks to human health and the environment. Orphaned contaminated site cleanup is being addressed through the Centenary Fund.
- The high cost of escaped wildland fires are being addressed through improved early detection and initial attack capabilities. However, a combination of dry conditions, multiple fire starts, high winds and high fuel loads could still result in very large escaped fires that consume valuable resources and endanger lives and communities.

Ecosystem Health and Natural Abundance of Renewable Resources:

- Of the four ecozones in Saskatchewan, the Grassland ecozone remains the most at risk due to the cumulative effects of extensive settlement and ongoing economic development. Concern continues to exist about pressures on shrinking native grasslands, biodiversity loss, and the fragmentation and destruction of natural habitat.
- The boreal forest zone is experiencing increased forestry development. Public expectations for sustainable use of the forest resource are high.
- In addition to the current 15 species designated as at risk, the status of 35 additional species is under review.
- Natural habitat restoration and management is key to biodiversity protection. SE along with many local and national conservation organizations is involved with many habitat restoration and management programs. The highest profile of these is the Representative Area Network (RAN) program. The Network continues to grow, as additions to it are still necessary to ensure long-term protection of ecosystems and biodiversity in the province.

Fair Opportunity for Sustainable Use and Enjoyment of Natural Resources:

- The supply of renewable natural resources is subject to cycles of abundance and scarcity due to a number of factors, such as natural population fluctuations, weather, over-harvesting, enforcement capabilities, and other human and natural causes over which SE has limited influence. Most natural fish and wildlife populations are in sufficient numbers to satisfy subsistence and recreational users.
- Affordable access to provincial parks remains a public expectation. The number of visitors has remained around 2.0 million for some years. Some parks come under heavier pressure from use. The challenge for SE is to maintain the natural and heritage amenities of these parks while meeting visitor demands for enhanced services.
- The demand for access to provincial renewable natural resources for economic developments, such as forestry, commercial fishing, outfitting, ecotourism, and agroforestry is increasing. SE's challenge is to satisfy these demands within the sustainable capacity of the resource base.
- As the Aboriginal population of the province increases, demand to exercise their constitutional rights for access and use of fish and wildlife will grow. SE's challenge is to ensure these rights are met within the sustainable resource use constraints.
- To minimize conflicts with the Aboriginal users of resources under SE's administration, many successful cooperative and collaborative processes have been initiated by SE and Aboriginal organizations such as FSIN, MNS, and at the local band councils level.

Where we are headed, what we intend to do and how we will measure progress

SE's 2002-03 Core Strategies
The basic elements of the plan are a long-term vision for the future, the strategic goals and objectives to achieve that vision, list of key activities in 2002-03 and the performance measures.

Our Vision
A high quality environment and healthy ecosystems in perpetuity which sustain social, health and economic well-being for Saskatchewan citizens.

Our Commitments
Saskatchewan Environment carries the provincial responsibility to manage, enhance, and protect Saskatchewan's natural and environmental resources for conservation, social, economic and recreation purposes, and to ensure they are sustained for future generations:

1. To ensure safe drinking water, the North Battleford Water Inquiry recommendations will be implemented.
2. The new Saskatchewan Watershed Authority will be established under the recently approved *Saskatchewan Watershed Authority Act*.

Key Priorities
1. Safe municipal drinking water will be a key priority. Some key recommendations of the North Battleford Inquiry will be implemented in 2002-2003.
2. Monitoring and protecting the surface water quality in the province is important to ensure safe use of surface water for recreation and drinking. SE will be working to develop a surface water quality index to measure ambient surface water quality in the province.
3. Biodiversity conservation and actions to protect habitat and species at risk in Saskatchewan in cooperation with other jurisdictions and private land owners particularly in ecozones most at risk.
4. Sustainable development and use of natural renewable resources by optimizing economic benefits from the use of renewable natural resources without compromising the long term sustainability of existing stocks of natural renewable resources of the province.

Detailed Performance Plan
The strategic vision, goals and objectives of this performance plan are long-term and will guide the department over the next several years. For each strategic objective, the department has identified key actions for the fiscal year 2002-03. These actions are expected to be achieved in this fiscal year. Department performance for achieving these actions will also be reported in the future.

Performance measures, and baseline values have been provided for many, but not all, objectives. SE is working on
developing performance measures and indicators for all objectives. A key issue is ensuring that performance measures are meaningful and useful for both management and accountability purposes. Often, baseline information is not readily available in usable and reportable form or it may still have to be collected.

Goal 1 - A Clean and Healthy Environment

Objective 1: Clean Water

1.1 Safe Municipal Drinking Water

1.2 Good Quality Surface and Ground Water

- Surface and ground (aquifer) water are used for recreational, agricultural, and fish and wildlife uses, as well as for municipal drinking water. It is important that the source water be free of dangerous chemical or biological contaminants that may make it untreatable and unfit for human consumption.

Key Actions for 2002-03

- As part of the North Battleford Water Inquiry recommendations, implement revised water pollution and water works regulations and establish a Drinking Water Quality Unit in the department.
- Publish an annual drinking water compliance report.
- Implement an enhanced bacteriological notification and follow-up protocol complemented by a quarterly monitoring and response program for drinking water quality exceedances.
- Expand monitoring of surface and groundwater resources in the province.
- Develop a Water Quality Index to evaluate the quality of surface water for multiple uses.
- Ensure monitoring of effluent quality from SE regulated point sources.

What are we measuring?

Number of people served with municipal drinking water meeting provincial minimum treatment requirements

The quality of drinking water depends on the quality of the source water to be treated, and the ability of the municipalities to operate the water systems within the treatment requirements set by SE. Since SE does not have direct control over all factors governing quality of water, it must work cooperatively with other agencies and organizations that have responsibility for, or impact on, source and drinking water quality.

Where are we starting from?

Municipal operated drinking water systems serve 850,000 people in Saskatchewan. In 2001, 780,000 (91.76 %) people received municipal drinking water that met the provincial minimum treatment requirements.

Objective 2: Clean Air

Clean air is essential for good health. Many factors affecting air quality are outside SE's control, such as wind, smoke from forest fires or industrial emissions from other jurisdictions. SE will continue to monitor and work with other parties and jurisdictions where necessary to ensure clean air.

Key Actions for 2002-03

- Review compliance and implement compliance plans and schedules for regulated air emission systems.
- Develop and implement a bilateral acid rain management framework between Saskatchewan and Alberta.
- Continue to cooperate with neighbouring governments to monitor air quality in the southeast part of the province

What are we measuring?
Ambient Air Quality

Air quality in the cities of Saskatoon and Regina is measured for exceedances of standards through federally established stations. Air quality depends on many factors. SE has control over air emissions from provincial sources only.

New monitoring stations have been established at Boundary Dam, the City of Estevan, Rafferty Dam and two sites in North Dakota to measure sulphur dioxide, nitrogen dioxide and particulate matter.

Where are we starting from?

The 10 year average is less than five exceedances of standards per year for good air quality as determined by the Air Quality Index.

In 2001, no exceedences were reported.

Objective 3: Clean Land

Clean land is also very important for health. Chemically contaminated land may contribute to pollutants entering water and air. Harmful contaminants in the soils may also enter the food chain and thus affect the health of many life forms.

Key Actions for 2002-03

- Ensure compliance with regulated stewardship programs (beverage containers, scrap tires and used oil).
- Clean up of known high risk contaminated sites in accordance with the Centenary Fund action plan.
- Continue inventory and risk assessment of contaminated sites, including abandoned mines, and develop clean-up strategies for high-risk contaminated sites.
- Update and implement a tank compliance strategy for petroleum distribution facilities.
- Provide Centenary Fund incentives for municipalities to establish regional low environmental risk waste management systems to greatly reduce the number of landfills in the province.

What are we measuring?
Contaminated sites

Contaminated sites pose an environmental and human health danger.

Where are we starting from?

In 2001, there were four known highly contaminated sites.

What are we measuring?
Recycling

Recycling is important for reducing demands on raw materials and its subsequent environmental impacts. Recycling enhances sustainability of resources.

Where are we starting from?

Annual recoverable product in 2001:

- 261,000,000 beverage containers.
- 935,719 passenger car scrap tires (estimate).
- 2,900,000 pesticide containers;
- 20,000,000 litres used oil.
- 2,200,000 oil filters.
- 1,000,000 kilograms of oil containers.

Annual recycled product:

- 83 per cent beverage containers.
- 62 per cent scrap tires.
- 61 per cent pesticide containers.
- 79 per cent used oil.
- 76 per cent oil filters.
- 19 per cent oil containers.

What are we measuring?	Where are we starting from?
Mines with decommissioning and reclamation plans and financial assurances in place Financial assurances are required to ensure decommissioning and reclamation of mine sites.	In 2001 sixty six per cent (66 per cent) of mines with financial assurance, decommissioning and reclamation plans in place. Thirty four per cent (34 per cent) of mines have financial assurances in place, with plans pending finalizations.

Objective 4: Minimize Risks and Adverse Impact of Wildland Fires on People, Property and Natural Resources

Wildland fires can pose significant risks to communities and timber resources. Climate change, human settlement patterns and fire suppression activities may increase the potential severity of wildfires.

Key Actions for 2002-03

- Deliver an effective and cost efficient wildland fire management system.
- Finalize a science-based Fire, Forest Insect and Disease Management Policy and begin implementation steps.

What are we measuring?	Where are we starting from?
Contained fires It is important to contain fires by early detection and attack to reduce loss of forest and other values at risk. Success depends upon a number of factors: early detection of fires, rapid effective initial attack, and quick, reliable support from aircraft.	Five year average (1995-99): 95.1 per cent of fires contained to less than 100 hectares. Out of these SE contained 90.4 per cent fire starts to less than 10 ha.

What are we measuring?	Where are we starting from?
Escaped fires Escaped fires are a measure of how the fire response and attack systems are working. A higher number of escaped fires increases fire fighting expenditures. Success depends upon a number of uncontrollable factors: detection conditions; multiple fire start situations where resources cannot attack all fires; the volatility of the fuel; burning conditions at ignition; the fuel type; proximity to resources allowing for rapid attack; the terrain; resource availability and the time of the year.	Five year average (1995-99) 4.9 per cent of fires in the full response zone grew to a size larger than 100 hectares.

Goal 2 - Ecosystem Health and Natural Abundance of Renewable Resources

Objective 5: Species and Habitat at Risk are Protected

Saskatchewan is facing the potential loss of some species due to a number of reasons including habitat loss and resource use conflicts. Protection and management of natural habitats and wildlife populations is required to help threatened species in the province.

Key Actions for 2002-03

- Conduct surveys on lands expected to have species at risk or threatened plant communities to manage and restore habitats necessary to maintain populations.
- Advance priority species to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) for national listing and list provincially under *The Wildlife Act*.
- Designate new ecological reserves or other protected areas to complete the representative areas network (RAN) and finalize designation of northern RAN's.

What are we measuring?
Ecological Representative Areas

Representative Areas are designated for managing landscapes to protect species and habitats at risk.

Where are we starting from?

As of December 2001, total area under RAN designation was 5,400,000 hectares. The RAN program started with 3,000,000 hectares

Objective 6: Biodiversity and Ecosystems are Sustained

Biodiversity is defined as the variety of life and its processes; it includes the variety of living organisms, the genetic differences among them, the communities and ecosystems in which they occur, and the ecological and evolutionary processes that keep them functioning, yet ever changing and adapting. Healthy ecosystems help sustain biodiversity. Many private and public economic development decisions that can have an adverse impact on biodiversity are beyond the control of SE. Therefore, SE faces the challenge of ensuring that the protection of biodiversity and ecosystems is considered when most economic development decisions are made.

Key Actions for 2002-03

- Assess the status of ecological health and integrity and work to restore disturbed natural functions for one watershed region.
- Implement Conservation Action Plans for provincial parks.
- Finalize and implement a Biodiversity Action Plan following consultation with other departments, the public and stakeholders

Goal 3 - Fair Opportunity For Sustainable Use and Enjoyment of Natural Resources

Objective 7: Equitable Allocation of Natural Renewable Resources

As increasing population and human activities demand access to natural resources to satisfy social and economic needs, equitable allocation of resources becomes a challenge. SE must maintain a balance between increasingly competitive demands on natural resources administered by SE, while at the same time conserving these resources for future generations.

Key Actions for 2002-03

- Monitor status of harvested populations (e.g. fish, ungulates, forests) and manage resources for long-term sustainability.
- Implement and enforce provincial regulations and policies on sustainable allocations.
- Monitor/implement: Amisk Atik Integrated Forest Land Use Plan, La Ronge Land Use and Development Plan, Buffalo Pound Integrated Land Use Plan, and Athabasca Road Corridor Land Use Plan.

What are we measuring?

Land use plans (LUP) developed for Crown resource lands

Land use planning, with stakeholder and community involvement, ensures that land based natural resource allocation policies are equitable.

Where are we starting from?

In 2001 land use planning has been completed for 2,599,700 hectares[2]

[2] *Land use plans completed: Pasquia Porcupine, Prince Albert Model Forest, Great Sand Hills, Manitou Sand Hills.*

Objective 8: Accessible Recreation and Educational Opportunities on Provincial Park and Crown Resource Lands

Provincial parks and Crown lands are a public resource and it is a responsibility of SE to ensure affordable access and safe and sustainable use of these resources by the public within the established policies and guidelines.

Key Actions for 2002-03

- Continue to Implement a provincial park marketing strategy, and the Conservation Action Plan for provincial parks.
- Continue capital upgrade and replacement of basic provincial park recreational and educational facilities and enhanced education and historic facilities for 2005 centennial earmarked for 2002-03.
- Undertake a mutual review of funding with Urban Park Authorities for Urban Parks.
- Initiate review of SE's role in relation to new responsibilities for Urban Park Authorities.
- Design financial strategy for provincial parks and initiate legislative changes required to implement
- Complete and implement framework for defining level of recreational and educational services for selected parks.
- Expand partnerships with First Nations, non-government organizations and financial sponsorships of provincial park activities.

What are we measuring? *Public use of provincial parks*	**Where are we starting from?**
Number of visits to the provincial parks is a measure of park use and popularity.	2,200,000 total visitations in 2000.

What are we measuring? *Provincial park visitor's satisfaction*	**Where are we starting from?**
SE provides outdoor recreational opportunity to the people of Saskatchewan. Park visitor's level of satisfaction is measured to assess the results of SE's efforts.	Eighty per cent satisfied according to a survey conducted in 2001.

Objective 9: Increased Economic Benefits Based on Sustainable Use of Natural Renewable Resources

A challenge for SE is to maintain a balance between its conservation and protection of natural renewable resources mandate and the demands of access to the same resources for economic developments. This objective speaks to the sustainable use of renewable natural resources for economic developments.

Key Actions for 2002-03

- Continue development of the Saskatchewan Forestry Centre.
- Assess major commercial fish stocks with hydro acoustic program.
- Complete negotiations of Term Supply License and Forest Management Areas to cover expanded wood supply allocations
- Complete forest inventory of forest lands in the northwest now available for economic development

What are we measuring?
Economic impact of forestry in the province

Forestry is an important economic activity in the province, which must be managed in a sustainable manner.

Where are we starting from?

In 2001, 5,600,000 cubic meters of timber was harvested from 6,911,000 hectares of sustainably managed forest lands.

The estimated value of total sales of forest products shipped was $884,000,000.

What are we measuring?
Economic impact of commercial fishing and aquaculture

SE is taking many steps to enhance the value of commercial fishing activity in the province. Level of revenues and volume of production from this activity will be the indicators of progress.

Where are we starting from?

a) Commercial fisheries had revenues of $4,000,000 in the year 2000.
b) 1998 estimates 875 tonnes of aquaculture production, valued at $3,850 000.

What are we measuring?
Economic returns from outdoor recreation

The dollar values of various outdoor recreational activities would indicate economic benefits.

Where are we starting from?

a) Wildlife hunting and viewing in Saskatchewan in 2001 generated $62,800,000 economic activity
b) In 2000 sport fishing activity generated economic activity of $118,000,000.
c) In 1996 participants spent $263,700,000 on outdoor activities in natural areas (hiking, boating, etc).

Objective 10: First Nations and Metis Rights and Their Interests in the Use of Natural Resources are Met Through Cooperative Means.

First Nations and Metis people have distinct constitutional and legal rights to access fish and wildlife resources.

Key Actions for 2002-03

- Increase number of active SE relationships with First Nations and Metis groups.
- Increase number of successful alternative measure interventions with First Nations and Metis individuals.

What are we measuring?
Number of active cooperative relationships with First Nations and Metis groups

SE and Aboriginal organizations are collaborating to create arrangements that result in benefits to the ecosystem, sustainable resource-based economic development and improved consultation and Aboriginal involvement in decision making.

Where are we starting from?

Cooperative relationships with 44 First Nations and Metis groups. Includes formal and informal relationships with bands, communities, provincial organizations, Tribal Councils, governance bodies (e.g. Treaty 4), Metis locals, and First Nations/Metis cultural, and post-secondary institutions. These relationships are useful as mutual consultation and conflict reduction measures.

What are we measuring?
Application of alternative measures to address Aboriginal infractions

Per cent of individual cases where alternative measures have been successfully applied with Aboriginal people is also an indicator of our relationship building efforts.

Where are we starting from?

During 2000-01, SE has successfully conducted 22 alternative measure interventions with First Nations and Metis individuals (this is 63 per cent of the total number (35) of all SE alternative measure interventions concluded in the past year).

Contact Information
If you have any questions or comments about the plan,
or would like additional copies,
we invite you to call:

Riaz Ahmed at (306) 787-1521
or SE's Inquiry Centre (306) 787-2700
toll free in Saskatchewan: 1-800-567-4224

or visit us online at: **Http://www.serm.gov.sk.ca**

Appendix A - Legislation Administered

- **The Clean Air Act** protects Saskatchewan's air quality by regulating emissions which originate in the province.
- **The Conservation Easements Act** encourages private landowners, conservation organizations and governments to protect ecologically sensitive lands and natural areas through voluntary agreements.
- **The Ecological Reserves Act** protects unique, natural ecosystems and landscape features through the designation of Crown land as ecological reserves.
- **The Environmental Assessment Act** provides a mechanism for requiring and undertaking impact assessment and evaluation. Ministerial approval is required before a proponent may proceed with a development, and terms and conditions may be imposed on the approval to mitigate impacts.
- **The Environmental Management and Protection Act** protects the air, land and water resources of the province through regulating and controlling potentially harmful activities and substances.
- **The Fisheries Act (Saskatchewan), 1994** enables sustainable management of fisheries resources by affirming provincial ownership of fish, creating a provincial licensing system, and regulating allocation of fish resources, fish marketing, aquaculture, sport fishing and commercial fishing.
- **The Forest Resources Management Act** allows the department to implement a new framework for sustainably managing Saskatchewan?s forest resources.
- **The Grasslands National Park Act** ratifies and validates the Grasslands National Park Agreement and allows the province to transfer land to the federal government for inclusion in the Grasslands National Park.
- **The Litter Control Act** makes littering an offence and provides for the establishment and administration of a deposit refund system for various beverage containers.
- **The Natural Resources Act** establishes the province's mandate to manage, protect, conserve and develop renewable resources in a sustainable manner.
- **The Ozone-Depleting Substances Control Act, 1993** protects the upper atmospheric ozone layer by banning the use and manufacture of ozone-depleting substances.
- **The Parks Act, 1997** provides authority for the management, administration and disposition of park land and park land reserves.
- **The Prairie and Forest Fires Act, 1982** provides for the prevention, detection and suppression of prairie and forest fires originating in provincial forests, parks and on unoccupied Crown lands. It also governs compensation for conscripted fire fighters and authorizes establishment and regulation of fire bans and burning permit areas.
- **The Provincial Lands Act** creates authority for the management and transfer of Crown lands.
- **The Regional Parks Act, 1979** allows the Minister to assist local governments and agencies in establishing regional parks and agencies to increase availability of parks to the public.
- **The Sale or Lease of Certain Lands Act** gives Cabinet the ability to place conditions on the transfer or lease of lands listed in a schedule to this Act•**The State of the Environment Report Act** provides for public accountability in reporting of environmental conditions and activities through the preparation and release of a State of the Environment Report every two years.
- **The Water Appeal Board Act** establishes the Water Appeal Board and enables the board to hear appeals regarding water, sewage and drainage issues.
- **The Wildlife Act, 1998** provides for the management, conservation and protection of wildlife resources through the issuance and revocation of licences, the prosecution of wildlife offenses and the establishment of annual hunting seasons.
- **The Wildlife Habitat Protection Act** provides for the management, conservation and protection of wildlife lands and wildlife by preventing the sale and alteration of certain Crown lands.

Appendix B - Primary Partners and Stakeholders

The organizations listed below are considered Environment's primary partners/stakeholders because they are:

- provincial in scope,
- have a significant impact on the environment or natural resources,
- are involved in major current issues, or
- maintain a long-term relationship with the department.

- Association of Saskatchewan Urban Park and Conservation Agencies
- Canadian Association of Petroleum Producers
- Canadian Association of Geophysical Contractors (CAGC)
- Cameco
- Canadian Bankers' Association
- Canadian Forest Service
- Canadian Heritage River System Board
- Canadian Interagency Forest Fire Centre
- Canadian Parks and Wilderness Society
- Canadian Petroleum Products Institute
- Canadian Plains Research Center
- Canoe Saskatchewan
- Cigar Lake Mining
- Cogema Resources Inc.
- Council of Saskatchewan Forest Industries
- Consumer's Co-operative/New Grade Upgrader
- Crop Protection Institute of Canada
- Department of Fisheries and Oceans
- Ducks Unlimited Canada
- Ecotourism Society
- Enbridge Inc.
- Environment Canada
- Farm Woodlot Association of Saskatchewan
- Federal/Provincial Park Council
- Federation of Saskatchewan Indian Nations
- Heritage Canada
- Husky Oil
- Interprovincial Pipeline
- IPSCO
- Kalium Canada
- L & M Wood Products Limited
- Meadow Lake Tribal Council
- Métis Nation of Saskatchewan (MNS) and MNS Regions
- Millar Western Industries Ltd.
- Mistik Management Ltd.
- Museums Association of Saskatchewan
- Nature Conservancy of Canada (Saskatchewan Division)
- Nature Saskatchewan
- NorSask Forest Products Ltd.
- Operator's Certification Board
- Parks Canada
- Partners for the Saskatchewan River Basin
- Prairie Farm Rehabilitation Association (PFRA)
- Prince Albert Grand Council
- Provincial Association of Resort Communities of Saskatchewan (PARCS)
- Rocky Mountain Elk Foundation
- Saskatchewan Action Foundation for the Environment
- Saskatchewan Archaeological Society
- Saskatchewan Association of Firearm Education (SAFE)
- Saskatchewan Association of Rehabilitation Centres (SARC)
- Saskatchewan Association for Resource Recovery Corporation (SARRC)
- Saskatchewan Association of Rural Municipalities (SARM)
- Saskatchewan Commercial Fishermen's Cooperative Federation Ltd.
- Saskatchewan Dutch Elm Disease Association
- Saskatchewan Eco-Network
- Saskatchewan Environment and Industry Managers Association
- Saskatchewan Environmental Society
- Saskatchewan Forestry Association
- Saskatchewan Government Employees Union (SGEU)
- Saskatchewan Independent Forest Industries
- Saskatchewan Indian Federated College (SIFC)
- Saskatchewan Institute of Applied Science and Technology
- Saskatchewan Mining Association
- Saskatchewan Outfitters Association
- Saskatchewan Parks and Recreation Association (SPRA)
- Saskatchewan Potash Producers' Association
- Saskatchewan Provincial Parks Cottage Owners Association
- Saskatchewan Regional Parks Association (SRPA)
- Saskatchewan Research Council
- Saskatchewan Ski Association
- Saskatchewan Snowmobile Association
- Saskatchewan Stock Growers Association
- Saskatchewan Trappers Association
- Saskatchewan Urban Municipalities Association (SUMA)
- Saskatchewan Waste Reduction Council
- Saskatchewan Water Appeal Board
- Saskatchewan Water and Wastewater Association
- Saskatchewan Watershed Authority
- Saskatchewan Wheat Pool
- Saskatchewan Wild Rice Council
- Saskatchewan Wildlife Federation
- SaskEnergy
- SaskFerco Products Inc.
- Saskfor MacMillan Ltd. Partnership
- SaskTip, Inc.
- SaskPower
- Saskatchewan Water Corporation (SaskWater)
- Small Explorers and Producers Association of Canada
- Sterling Pulp Chemicals
- TransCanada Trail Council
- Tourism Saskatchewan
- University of Regina
- University of Saskatchewan
- Weyerhaeuser Canada Ltd., Saskatchewan Division
- World Wildlife Fund